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American Railroad Journal.

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Saturday, February 1, 1851.

Pacific Railway.

TO THE EDITOR OF THE R. R. JOURNAL:

Sir—I received yesterday your Journal of the 10th inst., and have read the communication of "A Western Man," therein, in objection to mine on the general subject of the Pacific railroad of the 14th December.

I respect the friendly zeal with which the writer defends Mr. Whitney as the projector and persevering advocate of the greatest railroad project of the age, but in common with many others, I remain unconvinced that Mr. Whitney's scheme is the best adapted to build the road promptly, or that Mr. Whitney, with a preconceived definition of the route, is the most proper individual to ascertain without prejudice, and with a due consideration of all the interests involved, the best location of that route. I will readily grant that the devotion of such a man as Mr. Whitney to such an object is calculated to hasten its accomplishment by some years, provided that the scheme under which he works is that best calculated for its rapid execution; but Mr. Whitney's present scheme is by many considered to be deficient in this respect.

I will not follow the writer through the catalogue of errors which he has made me commit, because, besides that this would lead to a discussion of great length, the reader can himself judge of their relevany to the great matter in dispute, which is not with me, so much Mr. Whitney as the road itself.

It does not follow, however, that because no mention of stock is made in the bill granting Mr. Whitney the lands desired by him, that therefore he would not create stock, or in other words, associate others with himself, after the passage of that bill. Indeed, I am in the dark as to how the funds are to be procured so make the road, other than very tediously, unless through some such organization.

I should think, too, that it could hardly serve Mr. Whitney's cause to assume that those having interests different from his, are necessarily governed by unworthy motives, as "A Western Man" more than once insinuates, while Mr. Whitney's entire action is to be accepted as immaculate.

There exists no disposition to undervalue Mr. Whitney's services as the pioneer of the road, certainly no feeling of that kind on my part; but there exists as certainly an inability on the part of myself and many others to perceive that this plan is the best calculated to make certain a reasonably rapid execution of the project, and there exists a strong objection to the route chosen by Mr. Whitney, founded, as the writer truly observes, on its passing entirely to the north of St. Louis, the principal border city of the west.

St. Louis possesses now a population of 77,716 persons within her limits, and including the suburbs, a population of 82,924. She forms the great market city of the extreme west, towards which there are roads projected and making, which will connect her shortly with the principal seaport cities of the Atlantic coast. She is now making a railroad to Kansas, three hundred miles in length, and although this road passes through a mineral and agricultural country so rich, as to insure to it a sufficiency of business, independent of any connection with a railroad to the Pacific, it is not the less evident that it will lie in the general direction of such a railroad, and will shorten to the extent of 300 miles the distance between St. Louis and the Pacific coast.

To start from the western line of the State of Missouri, then, would reduce considerably the amount of road to be built, as compared with the Michigan route, and the amount of money to be expended; would connect the continental road with a most important and mercantile city of 77,716 inhabitants, and would connect it also with Cincinnati, the most populous city of the west—more directly than by the Michigan route.

These are considerations which would seem to be deserving of some weight in the determination of the location of such a road.

But St. Louis, so far as I understand her position, makes no claim to being made the starting point of this road, if the advantages should prove to be entirely in favor of the northern route. All that she insists upon in that case is the power to build a branch to that road accompanied by a grant of land and privileges in all respects proportioned to what may be granted Mr. Whitney on his northern route; and further, she is indifferent to the form in which that assistance shall be given, whether it shall be through Mr. Whitney himself, as forming a part of his scheme, or by a separate bill, provided only, that the branch be as promptly made as the northern trunk, and that both shall proceed on a scale commensurate with the work to be done, and under a system certain to secure their completion within a limited number of years. A connection with the road, and the prompt accomplishment of the road, are the great desiderata here. The mode in which that shall be effected, or through whom it shall be effected, are matters comparatively of no kind of consequence.

I have no disposition to dwell upon the scheme given in my communication of the 14th December—or to defend it from any valid objections to which it is open. It has, however, its merits, which its alleged resemblance to an unpopular bank will no way invalidate.

I am inclined now to look to a commission, if it

could be properly constituted, as the best form of satisfying and uniting the conflicting interests concerned in the position of the railroad to the Pacific, and of determining its location without prejudice, and with proper regard to all the interests involved. The great difficulty would no doubt consist in the nomination of the members of such a commission. If it were composed essentially of men of tried experience in the construction and management of railroads, its future action would prove satisfactory to the public at large, if it should not be entirely so to each particular interest.

I will mention some men of well known credit and integrity, in connection with the construction and administration of railroads, as proper persons to constitute such a commission; nor would there be any occasion for more than one member of such a commission being on the ground. All the examinations and surveys to be made could be conducted by agents of its own appointment, and the results could as well be considered in Washington or any other city, as on the line of the road.

The President of the Baltimore and Ohio railroad company, Thomas Swann, Esq., may be mentioned first, as peculiarly fitted to be of such a commission, Capt. W. H. Swift, President of the Western railroad, as another. George Bliss, Esq., of Springfield, Massachusetts, who, as agent of the Western railroad company, conducted that work so successfully to its completion. Alfred Kelly, Esq., of Columbus, Ohio, who has had so long experience in the construction of the public works of that State. Horatio Allen, Esq., of New York, who has been so long associated with the railroads of the State of New York. P. P. F. Degrand, of Boston, familiar with the railroads of Massachusetts, and who has interested himself, like Mr. Whitney, in advocating the construction of a road to the Pacific.

E. H. Derby, of Boston, who is more familiar with the details of railroads, perhaps, than any other non-professional man of our country.

There are many other names of equal experience, if not so widely known, and I mention these only as occurring to me readily at this moment.

Such a commission might consist of seven persons, two of whom should be *ex-officio*, the Colonel of the corps of U. S. Engineers (Col. Totten) and the Colonel of the U. S. Topographical Engineers (Col. Abert). The remaining five should be elected for a period of four years at least, and Mr. Whitney should form one of these five.

Their duty would be, first, to have proper examinations and surveys made of the difficult passes upon the road. Then to report upon and determine the location, and, thereafter, proceed as vigorously with the construction as possible.

I would propose that a certain amount of public lands, along the line of the road, should be placed in the hands of such a commission, to be disposed of gradually as the progress of the road made them saleable. I would propose that the funds necessary to make the proper examinations and construct the road should be obtained by a loan, guaranteed by the United States, and that the proceeds of the lands, placed in the hands of a commission, should be applied solely as a sinking fund for the redemption of the above loan.

I would propose, further, that when the entire road shall have been in operation two years, it shall be obligatory on the part of the commission to dispose of it in sections of 500 miles, or upwards, to private companies, and, that the proceeds of such sale shall be added to the sinking fund for the purpose of redeeming, at maturity, the loans which have been made for construction, and so of all profits arising from the road itself. And so far from deeming it a good feature that the road should be reserved in the hands of the United States, to be worked free of other than a nominal charge, I should consider it especially important that, when fairly in operation, the United States should dissolve all connection with it, feeling certain that it would, in that way, be worked more economically, and satisfactorily, and responsibly, than if in the hands of the government. I should consider the scheme incomplete, until the road was converted into stock and in the hands of private companies, and subject to the same tariff of charges as other railroads.

I will add, that it should be in the power of such a commission, after defining the route, to adopt Mr. Whitney's plan of action, and to place the entire project in his hands, if it felt convinced that, by so doing, the object for which the commission was constructed would be better attained than by any other.

In discussing the merits of this great measure, my desire is to avoid all personal altercation, as in no ways serviceable, either to the cause of truth or the advancement of this road.

I have not had leisure, nor have I felt it necessary, thoroughly to study all the details of Mr. Whitney's scheme, and the very general expression of opinion in regard to it, advanced in my last communication, were gathered as much from the opinions of others, as from any close examination of it by myself.

My objections to Mr. Whitney's scheme are strong on two points; 1st, that in advance of that instrumental investigation, absolutely necessary to determine the best route, he has determined upon a very northerly route, which passes entirely away from St. Louis, and this, without providing in his plan for a simultaneous connection with the most important border city of the west, upon which, as a point, more railroads are being concentrated, from influences affecting the Mississippi valley, than on any point on his northern route; 2d, that the plan, so far as it is visible in the bill, requires a much longer period of years for its accomplishment than, in my opinion, under a well considered plan, and with ample means would be necessary.

Now, if good men could be placed on such a commission as I have suggested, they would not define the road until in possession of a great deal of information not in existence now, nor would it occupy a great length of time to obtain this information.

I have already allowed that there are difficulties attending the formation of such a commission, and doubtless it might be so formed as to become a nuisance instead of a benefit. But with so many men in the country now of long experience in the successful establishment of railroads, there would be little excuse for the selection of persons not so qualified.

If, however, Congress should consider it most advisable to adopt Mr. Whitney's scheme, I shall wish him every success in its prosecution, and will willingly amend any doubtful feeling which I may entertain towards it now, if it should be prosecuted then as vigorously as the many interests dependent on its completion for their development require that it should be.

In such case I do not fear but that the continually increasing importance of St. Louis, and of that part of the Mississippi valley which she represents, would secure that assistance from the government, towards the construction of a connection with any main road away from her, which Mr. Whitney's scheme might as well have embraced, now so far as we can judge here, and which, if the commerce of the Mississippi valley were at all respected in proportion to its worth, would have formed a main feature instead of a subordinate one in any such bill.

As Mr. Whitney himself says that his only object is "to see this great work successfully accomplished," I may be permitted to hope that neither he nor his friends will find, in a free discussion of its merits, any disposition to thwart that common object, we claim here a right to take as near an interest in it as any other section of the country, and from motives which influence all likely to be affected by it, those of self-interest.

A SUBSCRIBER.

St. Louis, January 20th, 1850.

European and North American Railway.

Among the fine things said at the Portland Convention we think it may be safely asserted that the speech of the Hon. H. A. S. Dearborn, of Massachussetts, bore off the palm. The long public services of Gen. Dearborn, his invaluable experience in all the great questions of public improvement in Massachussetts, his varied attainments in many departments of scientific enquiry especially in those of physical geography and commercial statistics gave much force to his remarks. We have been told by more than one gentleman present, that his allusion to the public services and hardships of Admiral Owen was the finest specimen of stage affect ever produced.

We think the allusion to the great statesman and benefactor of the Empire State, ought not to be forgotten, at least upon the men of our day. Is it not due to the memory of Clinton, that a fitting memorial should place the record of his achievements beyond the reach of forgetfulness. Gen. D. spoke in substance as follows:—

I feel utterly unable to occupy so large a space as is opened by the resolution before us—a resolution to establish a highway that is to be the connecting link, and the great thoroughfare, between two continents, to do it well, to do it speedily. I feel satisfied that it can be done; I feel satisfied that it *will be done*—and that, old as I am, I may yet pass ove it; that, if the Lord spares my life for five years, I may go to St. John, to Halifax, to Ireland, to London; and crossing from Dover to Calais, I may go from thence by railway to the furthest extremity of Europe. (Cheers.) This may, by some, be deemed extravagant; but already the necessary steps have been taken for the construction of a railway from Calcutta to Bombay. The route from Calais to the Bosphorus may be considered as certain, within a less number of years than I have indicated. Nor shall this highway of nations stop there; for I believe that some Stephenson may yet arise, to throw an iron arch across the Strait between Europe and Asia; and that a visit to the Euphrates may be, to the traveller, but an ordinary excursion. (Cheers.)

It is but twenty-five years since I proposed that a railroad should be constructed from Boston to the Hudson; and that a tunnel would be made through the Hoosic mountain; for this, I was termed an *idiot!* An idiot I may be; but the road is made, and the tunnel through the Hoosic mountain is in course of construction. (Cheers.) Formerly, scientific men dealt in abstract theories; now, we find the workmen themselves entering into the halls of science, illustrating theory by practice, and teaching knowledge to the world. The time was, when weaving was a mystery; dyeing was one of the occult sciences; and even the manufacture of

soap depended upon good luck for a favorable result. But, by the help of practical science, all these matters are now reduced to a certainty.

Gentlemen—I feel satisfied that this railway *must* be constructed. It is true, there are not wanting those who will doubt that the sun shines at mid-day, unless they can see it for themselves.

Gentlemen—If all do not comprehend the importance, the practicability, and the profit of this great project, there are enough who do comprehend, to carry the measure to a successful termination. It was forty years after the discovery, by Newton, of the theory of gravitation, before it could be comprehended; now, it is practically understood by every school boy. It is but twenty years since the British nation sustained the loss of their statesman, Huskisson, struck down by a car in England, in the first passenger train that passed over its iron rails; but now, railways have become the ordinary means of traffic and transportation. We dare even to propose a line to the Pacific, and it is certain that that line will be constructed, so that the line now in contemplation will extend to the Atlantic shore of Nova Scotia. (Cheers.)

I well remember when the construction of a railway, three miles in length—from a granite quarry in Quincy to Boston bay—was projected; it was esteemed a wonderful undertaking. and looked upon as wild and chimerical; Now, there are over 7000 miles of railroad in the country. These, connecting with the present vast project, will almost entirely encircle the world. And these plans will be accomplished, either with the aid of governments or in spite of them, for it is not in their power to stop them.

Ohio.

Little Miami Railroad Company.—The receipts of this company for the past year are as follows:—

For carrying passengers	$204,589.87
For carrying freight	192,607.37
For carrying U. S. Mail	8,500.00
Total receipts	$405,697.24

EXPENDITURES.

For timber for repairs and superstructure	$5,842.56
For repairs and renewal of locomotives	26,181.86
For repairs of depot, including wages of watchmen at Fulton depot	2,151.95
For repairs of bridges	2,659.88
" " Passenger cars	4,841.13
" " Freight and gravel cars.	14,150.99
For labor repairing road-bed, superstructure and damages by flood, in March, 1850	30,109.46
For fuel	30,007.34
Transportation Expenditures, including wages of men, salaries, &c.	55,908.10
Miscellaneous	10,376.11
	$182,228.58
Deduct fuel on hand, included in charge for fuel as above	5,800.00
	176,428.58
Deduct materials on hand, tools, &c., charged to repairs of road	1,500.58
Total receipts on account of transportation	174,928.58
	$405,697.24
Total expenditures	174,928.58
Net receipts over current expenses	230,768.66

The following statement shows the business of the road for the years ending December 1st, 1846, 1847, 1848 1849 and 1850:

	1846.	1847.	1848.
Passengers.	$51,190 11	$90,843 90	$144,132 01
Freight	64,861 91	130,295 62	128,440 97
Mail			7,512 50
	$116,052 02	$221,139 52	$280,085 78
		1849.	1850.
Passengers		$154,817 63	$204,589 87
Freight		158,081 19	192,607 37
Mail		8,500 00	8,500 00
		$321,398 82	$405,697 24

From the Treasurer's report, we give the following abstract of the financial condition of the company, Dec. 1, 1850:

For construction	$1,650,073 14
" depots and real estate	168,664 31
" machinery	311,290 55
" expenditures on account of transportation	182,228 58
" cash in hands of treasurer	10,496 46
" branch road in Greene county.	232,608 42
" due from individuals and ag'ts	59,833 39
" profit and loss	34,980 42
" miscellaneous	89,696 63
	$2,729,375 74
By capital stock	$1,418,875 48
" loan of city of Cincinnati	100,000 00
" loan of 1846, in bonds of six per cent.	61,000 00
" bills payable	145,739 49
" transportation receipts	405,697 24
" eastern loan, at seven per cent.	190,000 00
" loan of 1848, in bonds at seven per cent	200,000 00
" revenue account, interest on branch road in Greene Co..	16,386 15
" due individuals	23,200 62
" dividends unclaimed	3,476 76
" loan of 1850 in bonds	165,000 00
	$2,729,375 74
Total cost of road, cars, engines, and appurtenances, to Dec. 1st instant.	$2,160,497 00
Real estate other than right of way..	46,114 75
	$2,206,611 75
Less interest chargeable to current expenses for the year 1850	40,218 35
Total cost of road	$2,166,393 40

The permanent loans and capital stock of the company are:

From city of Cincinnati, at 6 per cent.	$100,000 00
" capital stock	1,418,875 48
" eastern loan, at 7 per cent	190,000 00
" loan of 1846, in bonds, at 6 per cent.	61,000 00
" loan of 1848, in bonds, at 7 per cent.	200,000 00
" loan of 1850, on bonds collateral	165,000 00
	$3,134,875 48

Amount expended during the year ending Dec. 1, 1850, has been:

For graduation and masonry	$49,973 17
" bridges	1,360 94
" superstructure, including iron	312,443 66
" interest and expenses	42,758 46
" engineering	3,806 86
" machinery	32,131 25
" real estate	4,794 69
" lands for right of way	6,818 02
" transportation expenditures, including wages, fuel, horse power, repairs to engines, cars, &c., also repairs to superstructure, &c.	182,228 58
" depots and water stations	6,703 52
	$644,019 15

The president, in his report, states that, "during the past year considerable progress has been made in the works necessary towards the completion and efficiency of the road. The original flat bar has now been removed, and the T rail laid down, on 47 miles of the road, between Cincinnati and Xenia, leaving but 17 miles to be improved. Previous to putting down the heavy rail, the track has been repaired, and in many places reconstructed, the grades have been reduced, the road straightened, the embankments widened and made substantial, the bridges repaired, and the water-ways enlarged. All this work has been done in the most substantial manner, and with a view to permanency, so that when the remainder of the road shall be re-laid in the same way, our road will compare favorably, in construction and durability, with the best railroads in the United States.

The remainder of our road, extending from Xenia to Springfield, a distance of 17 miles, having been the most recently constructed, is still in a good condition, but this also will be re-laid with the heavy rail without delay, and with such improvements as may be found necessary. Our road will then be complete, and as it is contemplated that all the roads about to be constructed, with which we shall connect, will be laid down with the heavy rail in the first instance, our road will then offer inducements to the traveller which will probably not be surpassed elsewhere.

There will remain, however, some further expenditures to be made for improvements which are deemed essential. One of these is, the construction of a new track to diverge from the present road below Deerfield, running thence to Lebanon, and re-entering the road near Waynesville. The length of this branch will be about fourteen miles, and the distance saved by it will be about five miles. The present road will not be abandoned, but will be kept up to serve the purpose of a double track, and for the accommodation of the country through which it passes. Another change of the track is contemplated near Milford, by which the distance will be shortened, and the grade reduced; and a still more important one at the terminus of the road in Fulton. The track now occupies the centre of a street which is one of the most crowded thoroughfares leading into Cincinnati. This location, while it causes much dissatisfaction to the inhabitants, is, on that and other accounts, not a desirable one for the railroad, and a change is considered important, as well to obtain a track which shall be under our exclusive control, as to secure a better approach to our depot. The right of way will be costly; but the advantages of owning the track, of avoiding an inconvenient grade, and of complying with a public opinion adverse to our occupancy, will more than counterbalance the outlay.

The growing importance of the travel on our road, and the temporary character of the passenger depot at Cincinnati, admonish us of the necessity of erecting a larger and more convenient structure for that purpose; and the proposed change of location at this end of the road, will render it desirable to put up this building at the same time.

These further improvements form parts of the general plan announced in our former reports, and are necessary to the completion and advantageous operation of the road. Viewing them in this light, it is the intention of the board of directors to prosecute them with as much vigor as our resources will permit, so that at the earliest possible period the road may be brought into the best practicable condition for usefulness to the public and profitable investment to the stockholder.

To carry out these plans, it will be expedient to continue the policy, which has heretofore been pursued with good results, of expending the earnings of the road in its completion, and making our dividends in stock. Having laid out all our capital, and being compelled to make further expenditures in order to render that capital productive, we must either use our earnings for this purpose, or we must borrow money, or increase our stock by throwing additional shares in the market. These are but different modes of bringing about the same results, but the first named has this advantage: that we borrow from our own stockholders, and avoid the payment of extravagant premiums for money. By this mode we invite our stockholders to use their own money to enhance the value of their own property, and to secure a future revenue from capital already invested; and by keeping down the pecuniary liabilities of the company, we sustain its credit."

Illinois.

Terre Haute and Alton Railroad.—We have just received a copy of the survey of the route of the above proposed road, and a map and profile, from which we give the following general description of the route:

The line of the above road runs from Alton, Illinois, via Bunker Hill, in Macoupin county, Hillsborough, in Montgomery county, Shelbyville, in Shelby county, Charleston, in Coles county, and Paris, in Edgar county, to the Indiana State

line. It is then to be extended to Terre Haute by another company. In the survey the line was divided into six divisions, as follows:

	m.	ft.
FIRST DIVISION		
Commences at Alton, and ends at Bunker Hill	19	3,430
SECOND DIVISION		
Commences at Bunker Hill and ends at Hillsboro	30	2,730
THIRD DIVISION		
Commences at Hillsboro and ends at Shelbyville	43	2,480
FOURTH DIVISION		
Commences at Shelbyville and ends at Charleston	34	2,680
FIFTH DIVISION		
Commences at Charleston and ends at Paris	27	140
SIXTH DIVISION		
Commences at Paris and ends at State line	10	2,242
	165	3,142

Of the whole line, 141 miles is straight, and 24 curved. The curves are remarkably favorable. The greatest elevation obtained above the Ohio and Mississippi rivers, is only 322 feet; the maximum grade is 39.60 feet per mile.

The following is a general summary of the estimated cost of the different divisions in the road, including the equipment:

First division	$154,077 27	
Second "	241,185 80	
Third "	340,472 94	
Fourth "	274,085 72	
Fifth "	223,997 74	
Sixth "	74,441 83	
		$1,308,261 30
FURNITURE OF THE ROAD.		
10 Locomotive engines and tenders, at $7,500	$75,000 00	
10 Large passenger cars, at $1,800 each	18,000 00	
5 Baggage cars, at $500 each	2,500 00	
150 Freight cars	52,500 00	
40 Gravel cars	2,000 00	
10 Cars for live stock	5,000 00	
		$155,000 00
		$1,463,261 30

These estimates, says the engineer, were carefully made from a preliminary survey, and, in his opinion, cover the maximum quantity of work required to build the road. He is satisfied that improvements can be made at certain points, so as to lessen the cost of construction, by a sum equal to the incidental expenses of the road.

The average estimate per mile is $8,860, made up as follows:

Grading and bridging	$2,724
Iron and superstructure, etc	5,196
Equipment	940
Per mile	$8,860

This is undoubtedly too low a figure, but the whole work on the line is of the most favorable character, and no road in the west can be built cheaper. The country traversed is unsurpassed for its fertility. The only question in the construction is that of *means*. The country on the line of the proposed road is new, and its inhabitants have had time to accumulate but little surplus capital. The completion of the great lines in progress at the east will soon turn public attention to the projected lines through Illinois, which are necessary for their extension to the Mississippi river.

If the above company would take advantage of the favorable state of the money and iron market, it must be up and doing, in order to secure the necessary means before the natural revulsion takes place which is sure to follow the present abundance of money.

South Carolina Railroad.

We have received a copy of the operations of this company for the past year, which presents the following exhibit of its affairs:

The gross receipts of the road for the year	$912,720 25	
And the expenses of management, equal to 42 per cent	384,040 85	
Net profit	528,679 40	
Less interest on sterling and other bonds and other charges	188,991 16	
Leaving for net income	339,688 24	
From these profits two dividends of 3 per cent. each have been declared, amounting to	174,600 00	
Leaving a surplus of	$165,088 24	

to the credit of reserved fund account.

This result, says the report, seems full of encouragement, for it has been accomplished under many adverse circumstances. For example, there has been a deficiency in the down freight of $71,393 29, clearly attributable to the combined effects of a short crop and the break down at the Wateree Swamp. From this latter cause alone, there was a loss of revenue, as compared with last year, of $26,769 72, for the months of October and November, and an increased expenditure for repairs of $5,236 10. It seems therefore, not unreasonable to infer, that there was an increase during the same period of $91,710 38 over last year, in the up freight and passage, that had it not been for the adverse circumstances alluded to, the income for the year would have reached $1,000,000, and without any material addition to the expense of management.

To procure the necessary means for re-laying the track, and for such improvements as the interest of the company required, a requisition was made in March last upon the stockholders for $25 per share. From this source there has been received $611,316 50, leaving due on unpaid instalments $358,933 45.

The following is a statement of the property account of the company as it appeared on the 1st ult.

SOUTH CAROLINA RAILROAD.		Dr.
To stock: for 42,810 shares, at $75 per share		$3,210,750 00
To additional instalments paid in		611,316 55
To reserved fund, amount to credit		165,151 55
To balance, constituting balance of indebtedness of the company, per debt account below		2,661,987 67
		$6,649,205 77
		Cr.
By property in roads—say 242 miles, embracing Hamburg, Columbia, and Camden roads		5,468,119 59
By property in lands		92,823 09
" negroes—19 negroes		15,036 00
" locomotives—37 locomotives		205,915 00
" cars—15 passenger & 436 freight and baggage cars		217,242 36
" materials and machinery on hand to be applied		44,960 31
By railroad iron account—charged for relaying from October, 1848		486,293 10
By Charleston depot—lands, buildings and improvements		105,677 51
By inclined plane—works around		9,138 43
By new work shops		3,991 38
		$6,649,205 77

The following is a statement of the receipts and expenditures of the South Carolina railroad company, for the year ending 31st December, 1850:

		Dr.
To freight	$593,356 78	
To passage	272,383 37	
To mails	40,307 23	
		906,047 38
To minor sources		6,672 87
Actual business of road		912,720 25
Miscellaneous		19,486 76
Capital stock—additional instalments paid in		611,316 55
		$1,543,523 56
		Cr.
By reduction of indebtedness—		
From	$2,947,071 56	
To	2,661,987 67	
		285,083 89
Dividend for first 6 months	$87,300	
" second 6 months.	87,300	
		174,600 00
Rail iron account—relaying road		277,335 24
Relaying road—timber, spikes, and contract work		46,790 49
Property in locomotives—for 3 passenger and 2 freight engines		38,668 59
Property in cars—190 freight and 7 passenger cars		79,279 64
Miscellaneous		68,732 76
		$970,491 55
By following accounts charged to Income previous to declaring divid'nd.		
Interest on sterling bonds	108,918 18	
Interest general	68,250 75	
Exchange	616 40	
Property damaged and lost.	10,024 97	
Stock mutilated and killed.	1,180 86	
		188,991 16
By ordinary current expenses in bureau department.		
Salaries	12,435 74	
Contingencies,—stationary, etc.	1,559 57	
	13,995 31	
In road department:		
Salaries and wages	40,969 16	
Timber	16,942 21	
Spikes	8,979 34	
Contingencies	5,534 62	
	72,425 33	
In transportation department:		
Salaries and wages	150,912 92	
Expenses conducting transportation	14,447 63	
Tallow	4,707 04	
Oil	5,845 95	
Wood	26,210 07	
	202,123 61	
In machinery department:		
Salaries and wages	60,735 76	
Machinery bo't.	33,716 79	
Coal	1,044 05	
	95,496 60	
		384,040 85
		$1,543,523 56
The debt of the company has been reduced within the year, from		$3,515,507 61
To		3,176,668 65
Viz: notes of the company paid up in full	244,310 87	
Scrip redeemed	37,403 82	
Interest scrip for dividend No. 9, paid off	8,935 00	
Palmer, Mackillop, Dent & Co., and others	51,189 27	
		$341,838 96

There has been paid the past year for iron for relaying the road, the sum of $264,801 71.

Fifty eight and a half miles of old road have been relaid with new iron, within the past year, at a cost of $46,790 49 for labor and timber, leaving 39 miles

[exclusive of five and two thirds at the inclined plane] on the Hamburg branch [above Branchville] to be finished after the 1st of January, 1851, besides ten miles of a heavier rail, the relaying of which may be deferred until a later period. The work of relaying, it is expected, will be completed by the first of April next.

The motive power of the road has been increased within the year, by the addition of 5 new locomotives, [3 for passengers, and 2 for freight]; by 5 passenger, 1 baggage, and 137 freight cars.

Early in July last, a contract was made for grading the 1st, 2d, 3d, and 4th sections of a route previously adopted by the board for avoiding the present inclined plane at Aiken, the 5th section being reserved for the company's own hands.

The route was adopted after the fullest consideration, from a survey made by G. B. Lythgoe, Esq., the company's own engineer and superintendent of the road, and under advice of some of the most eminent engineers of the country. It leaves the old road near Mrs. Schwartz's, at Lower Aiken, and running to the left, crosses the present plane about 900 feet from its summit, and intersects the old road again near the Graniteville station, making it its whole distance 29,800 feet, equal to 5¼ miles; being 1800 feet, or a little over one third of a mile shorter than the present road. The route is a straight line for five miles, with the exception of a curvature of 1¼ inches in 50 feet at the lower end, and another of 700 feet on a level near Mrs. Schwartz's, where the radius is 2000 feet. The grade is 52·8 feet to the mile, and the estimated cost 110,000 dollars. The period stipulated in the contract for the completion of this work, is from the first April to the 1st July next. An efficient force of 130 hands has been at work on it since August last, and the progress already made in the work warrants the expectation that the contractors will be up to their time.

Great efforts will be made to complete the whole, and have it in readiness for the business of the ensuing season. A heavy rail, of the bridge pattern, and weighing 70 lbs. to the yard, has been ordered, and is now on the way for ironing it.

Machinery for the shops, of the latest and most improved invention and construction, is now being selected by an agent sent on to the north for the purpose, and will be received by the time the shops are ready.

The principal item in the repairs for the Camden branch, is for re-building the road across the Wateree Swamp. The tressel work over that swamp gave way early in October last, while an engine and train of 12 cars, loaded with cotton, were passing over it; and as the caps or crossties, resting upon the piles, and supporting the frame work above, some 10 feet in height, were not fastened to the piles either by dowell pin, tenon, or otherwise, the whole superstructure, when it commenced falling, fell to the abutment of the bridge at the river, a distance of 3¼ miles.

The repairing of this disaster cost the company $5,236 10, in addition to the loss from the interruption of business on the road.

The large increase in the receipts of this company is a gratifying indication for the future. A very large number of railroads are now in progress which must eventually use the South Carolina railroad as their trunk line. Upon their completion we see no reason why the receipts of this company should not be immensely increased, so much so as to make it one of the most profitable lines in the country.

Pennsylvania.

Schuylkill Co.—The Schuylkill navigation company has elected the following officers for the government of the canal this year, viz:—President, F. Fraley; directors, Joshua Lippincott, John R. Worrell, Eli K. Price, Richard D. Wood, Philip R. Howard, Benj. Gerhard, Thos. T. Lea, Chas. H. Rogers, Samuel Silliman, Lewis Audenried, Barnabus Hammitt, George F. Tyler; secretary and treasury, C. W. Bacon.

Central Ohio Railroad.

Below we give copious extracts from the exhibit of this company just published. We do this for the reason that the facts and arguments contained in it, are equally applicable to almost every other route in the State, so that while we publishing it, we may aid the operations of one company, we are rendering equal service to all similarly situated. The exhibit is drawn up with great ability, and gives a very distinct and lucid view of the resources and prospective business of the company, and aided essentially, we have no doubt, to success in the recent negotiation. The company are certainly under great obligations to its President, Col. Sullivan, for the able and successful manner in which its affairs have been conducted:—

The foresight of Baltimore in planning a railway connection with the west, and the spirit and perseverance, through years of labor, with which she has carried forward her great road, have not been sufficient, until recently, to inspire a general belief that she would be able to surmount the Alleghanies. Accordingly, the first railway efforts in Ohio were directed towards the lakes, by connection with which the flank of the mountains could be turned, and a steam communication had with the Atlantic seaboard.

The success of both the Philadelphia and Baltimore railway companies in finding practicable routes across the mountains, and the life given to the efforts of both interests by the stimulus of a generous emulation, have not only demonstrated that railways can, but will be built, and economically worked, over those, so called, barriers. And this demonstration is not solely to exercise a vast influence upon the fortunes of Philadelphia and Baltimore, but, from the consideration of furnishing the most direct routes to the west, necessary invites the attention of New York.

In addition to the discouraging influence of the impression alluded to, the fact that the Central Ohio railway was projected to traverse a region better provided with travelling and commercial facilities than other interior portions of the state—in the National road, the Ohio Canal, and the steam navigation of the Muskingum river—served to induce a less spirited movement, in the beginning of this enterprise than has been manifested by other less favored interests. But if last in asking attention abroad, the hope is felt that, ultimately, it will not be the least in public favor.

The very consideration which prevented the earlier development of this interest—now that the public mind demands more rapid and less expensive modes of travel and transport—will furnish to the Central Ohio railway an immediate and profitable traffic. It is, perhaps, the only line of railway in the west (except the Cincinnati, Hamilton and Dayton railroad) which shall have found an ample trade and travel provided for it before its construction, and impatient for its completion. Running parallel to and near the National road, the travel upon that great thoroughfare will, at once, be transferred to it: and intersecting at nearly right angles the Muskingum river improvment and the Ohio canal—very indirect avenues to market—those public works, instead of proving to be competitors, will be important tributaries to this railroad.

LINE OF OPERATIONS.

In consequence of ability to connect at Columbus with other railroads, built and being built—which will give outlet to Cincinnati, Indianapolis and St. Louis, and to the lakes—the Central Ohio company will, at this time, limit their action to that portion of their work which lies east of Columbus, and extending to Wheeling, on the Ohio river—a distance of 140 miles.

The first, or western division, between the cities of Columbus and Zanesville, a distance of 58¼ miles, is all under contract; the grading and masonry of some sections being already complete, the rest rapidly progressing; and contracts made with responsible parties for the bridging, and also for the delivery of cross ties for the whole line.

The chief engineer confidently expects to have the 25 miles of road between Zanesville and Newark ready for the rail by May next, and the balance of the line, 33¼ miles, is an equally forward condition by August or September next.

The line between Zanesville and Wheeling, which, from examination had, will probably be made within eighty-one and a-half miles, is now under survey.

It is the intention of the directors, as soon as the rail for the western division shall be provided, to commence the collection of the stock subscriptions already proffered for the eastern division, and place that portion of the work under contract with as much expedition as the surveys will admit.

COST.

For the western division, with a T rail of 60 lbs. to the yard, including depots, machinery &c.....	$877,000 00
For the eastern division, rail laid down 81¼ miles, $18,000 per mile.	1,467,000 00
Depots; &c.....	50,000 00
Additional machinery.....	250,000 00
	$2,644,000 00

When the road between Columbus and Zanesville shall be fully provided for, the directory do not doubt their ability to obtain a sufficiency of stock subscriptions to insure an early completion of the eastern division. For that purpose Guernsey county voted $100,000 at the last October election; the city of Wheeling, under a special law of Virginia, will shortly vote $250 000; Belmont county will doubtless vote $150,000 at the spring election; and Muskingum, already a stockholder for $150,000, will be called upon for $100,000 more at the next autumn election. These sums, added to the amount of individual stock which can be controlled for the eastern division, places the question of extension to the Ohio river beyond the ordinary chances of failure. Indeed, in any event it would become simply a question of time.

PRESENT CONDITION OF THE COMPANY.

The estimated cost of the railroad between Zanesville and Columbus,(and the work being either finished or under contract, the full cost can be very closely given,) with heavy T rail down, and equipped for business, will be.....		$877,000 00
To provide for this, the company have stock subscriptions, ($270,000 of which is already paid in,) to the amount of.....	$417,000 00	
Pledged, and partly subscribed at Columbus, the deficiency to be made up by Columbus and Xenia railroad company.....	100,000 00	
	$517,000 00	
Less interest to be paid stockholders, probably.....	10,000 00	
	$507,000 00	
To be raised by sale of bonds.....	370,000 00	
		$877,000 00

Ample means being in the hands of the company for completing the graduation, masonry, bridging, purchase of grounds, construction of depots, water stations and repair shops, the purchase of crossties, and laying the superstructure, it is proposed to issue the bonds of the company to provide for the rail and a sufficient amount of machinery, for the commencement of traffic upon the road. For that purpose the directors have authorized the issue of an amount of bonds not exceeding $450,000.

These bonds will be secured by a mortgage—the *first* and *only* lien—upon the western division of the road, the franchises of the company and all their chattel and real estate for that portion including the rail *in transitu* as well as when laid down.

RELATION TO OTHER RAILROADS.

At Columbus, the Central road connects, at the same depot, with the Columbus and Xenia, and the Cleveland, Columbus and Cincinnati roads—the former in successful operation, and the latter about completed. The Columbus and Xenia, with the little Miami road, over a distance of 119 miles, makes railway connection with Cincinnati. By the Little Miami road to Springfield, a connection is had with the Mad river and Lake Erie road, also in successful operation. This road is being extended (and nearly complete) from Springfield to Dayton. It is also contemplated to extend the Columbus and Xenia road from Xenia to Dayton, where a secohd connection will be made with the Dayton and Greenville, and the "western" roads. Following the latter to the the state line a connection will be had with the Terre Haute and Richmond road, (extended); which, passing through Indianapolis, traverses the whole width of the State of Indiana, and at Terre Haute, connects with the "Atlantic and Mississippi" road, stretching to St. Louis. At the west boundary of Ohio also, a connection will be had with the "Jeffersonville" road—a line eligibly situated for attracting traffic from the Ohio river, at Louisville, and from the Nashville and Louisville railroad.

At Columbus, also, the Central road will connect with the Columbus, Piqua and Indiana railroad, part of which is under contract, and under very vigorous management. This line, crossing the Mad river and Lake Erie road at Urbana, falls upon the Indianapolis and Bellefontaine road at Winchester, at which point its traffic will have relation to the line looking towards Peru and Chicago, as well as to the westerly communication through Indianapolis, in the direction of St. Louis.

At Newark, the Central road connects with the Columbus and Lake Erie road, which is now in operation, and furnishes a railway communication with Sandusky and Cleveland.

Such are the south-western, the western and north-western connections of the Central Ohio railroad. They are not merely proposed lines, but roads that are either in operation or more or less under construction.

Another very important connection is indicated in the Cincinnati, Wilmington and Zanesville railroad; which accommodating, as it will, a large district—very fertile and densely populated—and furnishing also, in part, the line of approach for an extension of the Frankfort, Lexington and Maysville railroad interest (which will bring also a share of traffic from the Nashville and Louisville road) will doubtless be constructed. The projection of this line is predicated solely upon the extension of the Central Ohio road east of Zanesville, and will, unquestionably, add largely to its traffic. This is an additional argument for such extension.

At its eastern terminus the relations of the Central road are, certainly, not less interesting.

The route by the city of Baltimore—from its geniality of climate, and from that city being nearer to the portion of the Mississippi valley, where, heretofore, has been the preponderance of population and trade—has always been a favorite route of travel for the people of the west. The growing tendency to take Washington city, in trips made east and west, will counterbalance any partial diversion, to other routes, of travel which has heretofore belonged to this.

The Baltimore and Ohio road—prevented by the Virginia Legislation from striking the Ohio river with its line, any further south than the Mouth of Grave creek; and by the topography of Interior Ohio from making any other advantageous railway connection—will, for many years to come, look to the Ohio river and our Central road for its through traffic.

At Wheeling, also, will be met the extension of the Hempfield railroad—a line that, diverging from the Pennsylvania Central railway, at Greensburgh, will, in connection with our road and its western extensions, furnish the shortest practicable route between either Philadelphia or New York Central Ohio, Cincinnati, and even St. Louis. So well convinced of this fact are opposing interests, that, for the purpose of countervailing it, a line down the margin of the Ohio river, from Pittsburgh, to connect with our road at Bridgeport, has been earnestly suggested.

PROFITS.

By the State Auditor's report for 1849, the aggregate amount of taxable property in the five counties through which this road directly passes, is $43,011,063—just one tenth of the whole taxable property of the State. The population of these counties is about two hundred thousand. The aggregate of taxable property in the twenty-four counties [there being 85 in the State] penetrated by this road or by tributary lines struggling to make the shortest and best connection with the seaboard, is $217,732,271 00. This is more than half of the whole taxable property of the State. The population of the same district is probably about half of what the State contains at this time.

That the traffic of these counties with the Atlantic cities will prefer the Central Ohio road is manifest, not only from the greater directness of this line, but also from its greater exemption from snows than roads nearer the Lake—the winter season, (where railway facilities can be obtained,) being the time for the greatest activity in produce operations.

PROSPECTIVE TRAFFIC OF THE CENTRAL OHIO RAILROAD.

The difficulty of getting reliable statistics, in regard to the resources of a country so rapidly improving as the west, has caused too much freedom of assumption, in making up estimates of traffic for proposed railways. The distrust produced by such freedom of assumption, operative, in some measure, as it is, against even sound railway projects, induces a feeling of reluctance to go into an elaborate estimate of the extent of traffic which the Central road may justly claim.

The following table of the resources of twenty-four counties in Ohio, which the Central road penetrates, by itself or tributary lines, from which it will draw the larger share of their traffic with the seaboard, is taken from the report for 1849 of the Auditor of State. As that report does not give products, and the census returns are not yet had, we shall have to look for those statistics to other sources.

Table of Resources, in part, of 24 Counties in Ohio through which the Central Ohio railroad and its tributary lines will pass. From State Auditor's report, 1849: together with the population of those Counties in 1840;

Counties.	Am't of Taxable property in 1849. Dollars.	No. of Horses.	No. of Neat Cattle.	No. of Sheep.	No. of Hogs.
Belmont.	7,249,624	9,552	13,449	70,365	31,323
Guernsey.	4,905,720	9,282	14,182	81,662	30,771
Msk'gm.	10,816,029	11,839	19,676	81,785	37,645
Licking.	8,931,727	11,670	19,832	118,789	33,891
Franklin	11,108,993	9,466	15,007	32,981	54,516
Clark....	6,758,999	6,765	14,031	55,242	25,543
Champ'gn	4,956,712	7,172	12,753	46,870	27,093
Miami...	6,277,904	7'434	10,799	29,024	26,390
Darke....	3,281,236	6,340	10,803	23,418	29,369
Preble....	6,043,236	7,965	11,167	26,614	38,744
Mont'ry.	12,622,331	9,935	13,996	29,019	34,243
Butler...	10,467,004	10,632	12,420	16,162	63,425
Hamilton	53887,166	12,419	12,239	9,379	37,672
Clermont.	6,534,215	8,373	10,687	22,195	51,076
Warren..	8,091,250	8,487	12,149	28,635	41,717
Green....	7,339,718	7,870	12,530	44,277	36,484
Madison.	3,532,529	4,732	20,600	48,058	23,587
Clinton...	4,467,533	6,795	11,485	49,491	40,538
Highland.	5,553,814	9,027	12,024	39,337	53,286
Ross....	10,247,961	10,228	24,129	30,350	66,483
Pickaway.	7,869,061	8,181	23,889	31,055	54,382
Fairfield..	7,490,984	10,166	16,724	48,105	42,414
Perry....	3,570,619	6,411	11,018	49,473	20,578
Knox....	5,727,936	8,407	14,377	85.883	24,659
Total.	217,732,271	209,154	350,966	1,098,159	925,827

Whole amount of taxable property of the State in 1849 was $430,839,385.

The population of the above counties at the present time is not far from 1000,000.

The importance of this table, in making up our estimates, can only be fully appreciated, in the consideration that live stock can be transported on railways more cheaply, than driven on foot. Large numbers of horses, mules, and neat cattle, are now driven from Ohio, Kentucky, and Indiana, and, to some extent, even from Illinois and Missouri. This is done at a greater expenditure of money and time, and with great loss of flesh to the animals driven.

The saving alone, in condition, of horses, mules, and cattle, would well justify, we are informed by drovers (and as statistics of English railways demonstrate) the payment of 25 per cent more cost for their transportation, by railway, than for driving. Hogs, still more troublesome, and relatively, more expensive to drive, can be transported as cheaply, in double-tiered cars, as rolling freight; and, by their transportation alive, not only is the offal taken to a better market than it commands in the west, but there is saved also the transportation of 100 lbs. weight of barrel and brine to each hog. This saving would amount to about 50 per cent—an expenditure which is a perfectly needless cost if the hog can be transported alive. There would also be a saving of the expense of repacking, and substituting ocean salt for western boiled salt. This expense has now to be submitted to, before inspection.

Upon the completion of a continuous railway with the East, the pork business of Ohio will be revolutionized. A large portion of the pork-packing business must be transferred to the seaboard cities.

This result, in connection with the influence to be exercised upon other live stock and upon bread stuffs, will give us the following schedule of freight, going east, that can, doubtless, be controlled by the Central Ohio railroad, viz:—

[See foregoing table.]

One-twentieth of the horses, 10,452; 900 lbs. each.....	4,703 tons	
One-third of the horned cattle 116,-988, 1000 lbs. each	58,494	
Tons,	63,197 at 4 c. per m.	$353.903 20
One-twentieth of the sheep, 54,907—133 lbs. each.....	3,651 tons	
One-half of the hogs 462,913—at 200 lbs. each.....	45,291	
	49,942 at 2 c. per m.	125,637 60
		$479,540 80
*826,000 barrels of flour, 89,200 tons, at 2 cts. per mile—82 miles.....		146,300 12
Tobacco, wool, dried fruit, seeds, &c., &c. say.....	6,000 tons.	
Return freights for eastern division, say...30,000		
36,000 at 4 cts.		132,000 00
Great mail twice daily, $200 per mile each line.....		56,000 00
Freight list for western division, not embraced in the foregoing, 34,940 tons at 4 cents 58½ miles (see page 17).....		81,759 60
Coal, (see pages 15, 16) 100,000 tons at 2 cts 58½ miles.....		117,000 00
		$1,012,601 52

* This aggregate is made up from parts of Franklin, Fairfield, Knox, and Belmont, and all of Licking, Perry, Muskingum and Guernsey, and is a low estimate of their surplus; Muskingum alone in 1847 having shipped 213,000 barrels or flour.

Flour could be delivered by railway to N. York via Baltimore at 112½ cents per bbl., and by Philadelphia at 118¾, which, independently of the great saving of time—an important element of value to so excitable an article of traffic as breatstuffs—would be 30 per cent cheaper than the present cost by canal, or by the New Orleans route.

Looking to the prospective pressure of traffic towards the Central line, it is not assumed that the whole of this flour *will* be sent by railway; but that we *can control it*, if we can furnish conveniences for handling all the through freights that may be presented, as fast as desired.

TOPOGRAPHICAL CHARACTER OF THE WESTERN DIVISION OF THE ROAD.

Between Zanesville and Newark—25 miles—the maximum grade [occurring only on two or three short sections,] is 20 feet to the mile. There is one short curve of 900 feet radius, and two of 1,000 feet. The remainder of the line is either straight or of very easy curvature.

The line from Newark to Columbus—33¼ miles—is but three-fourths of a mile longer than the air-line—has only about one and a half miles of curved line, and the remainder straight, of from three to thirteen miles stretch. Maximum grade, 43 feet to the mile.

Gravel for the road-bed is very plenty along nearly the whole line. The bridges are to be Howe's patent. All the materials used and the work done to be of the best description. In every particular, so far as durability is concerned, the directors are resolved to have a first class road.

PASSENGER TRAFFIC.

The best information to be obtained of statistics of travel upon the Ohio river, shows that there is a daily average of, at least, 100 passengers each way, between Cincinnati and Wheeling—an aggregate of 73,000 per annum.

The time occupied on the trip by first class boats, in a good state of water, is usually 30 hours descending, and 46 hours ascending. By railway—259 miles—the time need not exceed 10 hours. This saving of time would, certainly, withdraw from the river two-thirds of its through travel—say per annum, 48,666†

Add through travel, indicated (page 18) for western division.....	22,347
	71,013 at $4 20—$298,254 60.
Add for way passengers, making 10 miles each, say one-half of the number of through, (the usual proportion being ½ of the whole travel)...	35,506 at 30 cts. ea—$10,651 80
	$308,916 40
Freight list.....	1,012,601 52
	$1,321,517 92
50 per ct. off for current expenses...	660,758 96
Net profits.....	$660,758 96

Or 25 per cent.* on cost.

Startling as this estimate may be, to those who do not know the west, the directors of the Central company are so well satisfied of the value of the enterprise they have in charge, and its future business, that they have ordered upon the portion under contract, the rock excavations and the foundations of the bridges, to be made with reference to an early construction of the second track.

VALUE OF THE WESTERN DIVISION, ALONE.

Lines of railway running east and west through Ohio—and intersecting at right angles the public works—without interfering materially with their revenues, (which are mostly derived from local trade,) will find those public works to be important auxiliaries. They will bring to the more direct and more expeditious outlet, the traffic of portions of country which, for years to come, may be destitute of railway facilities.

COAL.

The geological structure of Ohio is, also, such as, necessarily, to induce a large amount of local commerce, upon railways running east and west.

The westerly rim of the great coal-field of the state, entering the eastern boundary in Trumbull county, sweeps south westerly to the line dividing Muskingum and Licking counties, and then southerly to the Ohio river, in Lawrence county. The whole region of country between this river and the lake, and extending west to the Wabash valley, in Indiana, is destitute of mineral coal. The canals of Ohio have already made this article, ultimately to be indispensable, a large feature in their commerce. Coal, introduced by such channels, is already extensively used in Cleveland, Newark, Columbus, Chillicothe and Dayton. At Xenia and Springfield it is furnished by railway from Cincinnati; but as Cincinnati receives its supplies from the upper valley of the Ohio river, the coal trade from that quarter, for interior Ohio, will cease as soon as railway connection is had with the coal mines of Muskingum.

EXTENT OF THE COAL TRADE.

The statistics of the coal trade of Cleveland for 1847, (probably much enlarged now,) show that while the foreign and coastwise demand took away but 336,442 bushels, there were retained for city use 903,180 bushels, or 31,600 tons. The aggregate population of Columbus, Xenia, Springfield and Dayton is, now, nearly four times as great as was the population of Cleveland in 1847; and by same ratio should consume annually 126,440 tons of coal. This ratio would, probably, be reduced at points where the cost of coal, in relation to wood, proves greater than the relative cost at Cleveland; but the deficiency will, probably, be made up by increase upon the ratio at Columbus.

It is, we think, safe to assume that the coal business for the four places which can be reached by us, will give to the central road the transportation of 100,000 tons per annum.

BUILDING STONE.

For building purposes at Columbus, stone has been transported by canal, from Pike county, a distance of 60 miles—and also from Hocking county, a distance of about 40 miles. How far the delivery by railway, from the Licking quarries of a better article at a less price, will make traffic for our road, can only be conjectured—especially for a rapidly growing city like Columbus.

MANUFACTURES.

The city of Zanesville, with exhaustless mines of iron and coal, and blest with a water power unequalled in the west, is destined to be the most important manufacturing town in Ohio. It holds the first rank in that respect already; and a railway outlet, to the diluvial region beyond the coal field, will furnish at once a very largely-increased demand for her manufactures, and open to her an ultimately limitless market. In addition to the abundance and cheapness of the water power, coal can be furnished at the manufactories at 87½ cents to $1 per ton; and as the well cultivated country around it, gives a bountiful and cheap provision market, there must be opening for Zanesville manufactures of iron, nails, cotton, glass, white lead, paper &c., a very enlarged range of traffic.

As some evidence of the amount of trade with this place, and its neighborhood, could furnish to the western division of the Central road, independently of the large influences to flow from a railway junction at the important town of Newark, and also at Columbus. The Reports of the Board of Public Works show that, in 1817, the freight handled at Zanesville and Dresden alone, to say nothing of the business of nine other trading points in the county, was three thousand tons more than the whole tonnage business of the Little Miami railroad for the year 1849. And yet that road was able to declare ten per cent dividends upon an amount of twice the estimated cost of the western division of the Central Ohio railroad!

The traffic of the western division of the road is estimated at 34,940, which at 4 cents per mile would yield a revenue of.....	$81,759 00
100,000 tons of coal at 2 cts.....	117,000 00
Live stock at 3 cents per mile.....	43,032 60
Passengers.....	66,400 00
	$307,896 60
Off 50 per cent expenses.....	153,948 30
	$153,948 30

Or 17 per cent upon cost.

Report of the Engineer,

ON THE ADVANTAGES OF THE WILLIAMSPORT AND ELMIRA RAILROAD, AND COST OF CONSTRUCTION.

Below we give the substance of the report of the Engineer, T. E. Sickles, Esq., of a survey of the route of the above road, by which it is proposed to connect Philadelphia and Baltimore with the improvements of western New York, by a line through the interior of Pennsylvania. The following is a description of the route, and statement of some of the resources of the section traversed:

To the President and Directors of the Williamsport and Elmira Railroad:

The first extends northerly, and intersects the Erie canal and Albany and Buffalo railroad at Geneva, via Seneca lake and railroad to Canandaigua; the second runs eastwardly, by way of the New York and Erie railroad, to the Hudson river; and the third extends westwardly by way of the same railroad to Dunkirk on Lake Erie, and by continuation to Erie in Pennsylvania, and Buffalo in New York.

The southern terminus at Williamsport connects with the Pennsylvania canal; which, running southerly to Chesapeake Bay, joins at the present junction of the Juniata with the Susquehanna, 15 miles above Harrisburg, the railroad to Philadelphia, another to Baltimore, and a fourth to Chambersburg.

As a general proposition, it is readily credited that a railroad seventy-five miles in length, opening a channel of rapid and unfailing communication where none previously existed, between lines of internal improvements extending from the termini for many hundred miles in either direction, through a region thickly settled and possessing great agricultural and mineral resources, would prove a profitable investment for capital, provided its construction was attainable without overcoming great physical obstables.

The Williamsport and Elmira railroad not only possesses the general advantages of a road thus located, but will attract to itself, on completion, an amount of business which, to those most familiar with the resources of the region through which it passes, fully justify an entire confidence in the great value, importance and public utility of the road.

It is proposed to exhibit briefly, and in general terms, the character of the business upon which reliance is placed to render the road a profitable investment for capital.

In addition to the ordinary way-freight and passenger business, the chief source of revenue will be derived, 1st, from the transportation of anthracite and bituminous coal, and of iron to Elmira, to supply the demand of interior New York, and the return freights of salt and plaster to Williamsport; and 2d, from the great through passenger business between western New York, and places south of Philadelphia.

The former only awaits the construction of this railroad for its development, while the latter requires, in addition, the construcion of a railroad 80 miles in length from Williamsport to Duncan's Island, to direct it from the present circuitous route.

It will be seen on examination that the Williamsport and Elmira railroad passes through the bituminuous coal region of Pennsylvania, where it approaches nearest to the State of New York. In Ralston, on the line of the road, where the mines have been worked for many years, the character of the coal and its superior quality for domestic use, and for the generation of steam are well established; while the facility with which it

* The traffic of the road may prove it necessary to increase the item of machinery beyond the amount estimated. This would reduce the present estimate of profits; but it is not usually considered disadvantageous to a railroad, to be compelled to enlarge its business facilities.

† Should it be objected that this travel, diverted from the river, might be shared by the other two east and west lines, it may be answered, that whatever deficiency shall result from such cause, will be amply made up, in the amount of local travel stimulated into existence by the railway, and for which no estimate is made. A large allowance should be claimed for this, because the immediate belt of country through which the Central road is located is more densely populated than any other in Ohio, of equal extent, except the great Miami Valley.

is mined, and certainty of position, give assurance of profitable returns to operators, whenever the means are provided for its transportation to a market.

Western New York must soon receive its fuel from the coal fields of Pennsylvania, and this must come from those above described. The nearest deposits of anthracite coal to New York, are the Wyoming and Middle coal fields of Pennsylvania, whence the distance to Elmira from the former, by way of the North Branch canal and New York and Erie Railroad, is one hundred and twenty-six miles, and from the latter, by way of the West Branch canal and Williamsport and Elmira railroad, is one hundred and thirty miles. In this point of view, it is a work of great importance to the people of this State, in opening to them a cheap and inexhaustible supply of coal, which, for all purposes of fuel, must soon take the place of wood.

The following shows the relative distances by this route, from some of the principal towns of western and central New York, to Philadelphia and Baltimore:

	Miles.
From Geneva to Baltimore, via New York and Philadelphia	535
From Geneva to Baltimore, via Williamsport and Elmira railroad	319
Difference in favor of route by Willmp't	216
From Utica to Baltimore, via New York	427
From Utica to Baltimore, via Williamsport and Elmira railroad	427
From Elmira to New York, via New York and Erie railroad	283
From Elmira to Philadelphia, via Williamsport and Elmira railroad	279
From Elmira to Baltimore, via Williamsport and Elmira railroad	257

Between Geneva and Baltimore, which are points common to both lines from western New York to Washington, the distance at present travelled over is greater by two hundred and sixteen miles than by the route passing through Williamsport.

The distance from Williamsport to Elmira is 75 miles. Of this distance, 25 miles is built, and has been in use several years, leaving only 50 miles yet to be opened.

The route is favorable; the grades in no case exceeding 52 feet to the mile, and but one of this character. For extent of mineral riches, it is unsurpassed; as a part of a great through route it is now one of no small consequence, and must receive a large amount of travel between two widely separated sections of country, in the summer time particularly. It will, at all seasons, give to the people of its line a choice of markets between New York, Philadelphia and Baltimore—a matter frequently of very great advantage to the farmer. It is important, too, as connecting the systems of internal improvement of two great States. The road, we understand, is now under contract, to be pushed forward with as much dispatch as possible. The officers of the company are:—President—Ellis Lewis, Lancaster, Penn.; Secretary—Archibald Robertson, Philadelphia; Treasurer—J. B. Mitchell, Philadelphia; Superintendent—Robert Faries, Williamsport.

For Sale.

TWO Locomotive Engines—10½ tons weight, built by Baldwin. Also Four Eight-wheeled Passenger Cars, with side seats, all in good running order. Apply to WM. E. MORRIS,
Office of Philad., Germantown & Norristown Railroad Co., 9th and Green sts., Philadelphia. 3m5

Iron Trade of Pennsylvania.

DOCUMENTS and Statistics relating to the Manufacture of Iron in the State of Pennsylvania—giving a history of the manufacture from its commencement to this date, illustrated by diagrams. Also tables giving the address and capacity of every establishment in the State. Prepared by direction of the late convention of the trade held in Philadelphia. For sale by
LINDSAY & BLACKISTON, Philadelphia.
FIELDING LUCUS, Jr., Baltimore.
HENRY G. NICHOLS, 79 Water st., N. Y.
or at this office—price $1 00.
It will be sent by mail to any order enclosing the money, and post paid.

Wanted.

A Second-hand Locomotive, weighing from 10 to 15 tons. A note, addressed A. B., at "Railroad Journal" office, will receive attention, if sent soon.
January 21, 1851.

AMERICAN RAILROAD JOURNAL.

Saturday, February 1, 1851.

Jeffersonville Railroad.

We have often spoken of this project, and we again refer to it for the purpose of pointing out its important relation to the railroads of Indiana, and the general railroad system of the whole country, and as a great trunk line for the railroads of that State to the city of Louisville, the leading city of the lower Ohio, and the commercial mart of a large portion of Indiana. In the absence of any larger town within the borders, Louisville and Cincinnati are the two great commercial towns for the trade of Indiana. Louisville, as far as distance is concerned, occupies much the best position in reference to this trade, in being much nearer the centre of the State. It has the additional advantage of being situated on the falls of the Ohio, below which, the navigation is much more unobstructed than above, and being, for this reason, a cheaper shipping point for goods intended to be forwarded via New Orleans. The Jeffersonville railroad runs from the Ohio, opposite Louisville, to Columbus, on the Madison road; and, in connection with it, forms an almost straight line to Indianapolis, a distance of 110 miles, thus bringing the central portion of that State into direct communication with their appropriate market. A glance at a map of Indiana will convey a much better idea the importance of this connection, than we can give by any description. It opens an outlet, and in a proper direction, for the central and richest portions of the State. For local traffic, few roads can show more flattering prospects, or presents better promise of a large and profitable business. We believe it would be difficult to present a similar work where the section of country traversed possesses greater resources for the profitable employment of a railroad.

But these considerations, which are believed to fully warrant the construction of this work, hardly arrest attention in a general "coup d' œil" of the project. In looking at a map of Indiana, the fact that first strikes the eye, is the great number of lines of railroad radiating from Indianapolis. This town is so situated, that a mutual interest attracts to it nearly all the important lines in progress in the State, though this interest is not based upon any commercial inducements which it holds out. The Ohio river and the lakes are, and must always be, to a great extent, the natural outlets for Indiana, and these are the proper termini of its railroads. Indianapolis is simply a point of intersection.

For all these roads the Jeffersonville is their virtual extension, their truck line to the leading town, and commercial centre of the lower Ohio. It is the *trunk* of the great *tree* of railroads which are now overshadowing the whole State; and for their trade and travel, in connection with Louisville and the railroads radiating from that city, it is the appropriate and natural avenue.

The general route of this road not only coincides with the line of convenience, but it is the only good outlet yet found, or that is believed to exist, between the central portions of the State and the Ohio river, until we approach the valley of the Wabash. The whole northern bank of that river is skirted by a continuous range of high hills, broken only by the gorge traversed by this road. The Madison road gains the top of this ridge by an inclined plane of 446 feet. All the other lines leaving the Ohio, with the exception of the Evansville, encounter very severe grades. The summit by which this ridge is passed by this road, is only 172 feet above the Ohio, and is the highest point in the whole line of 66 miles. The ruling grade in the direction of the traffic is 25 feet to the mile, and only 26 in an opposite direction. These facts show the excellence of the line, and the cheapness with which the road can be operated. The road will be only 1½ miles longer than a straight line. For that part of Indiana, the business of which is attracted to Louisville, it must be the great outlet, and this, without a rival. Such being the fact, from the natural configuration of the country, the amount of its prospective every person can see must be very rich.

We have thus far confined ourselves to a statement of the prospects of the road, from its local business; but the great lines now in progress in different parts of the country, and which require to be united to each other to give them their full efficiency and usefulness, have given to the Jeffersonville an importance in public estimation greatly exceeding that arising from its local considerations. The great lines of railroad running *east* and *west* are more intimately connected with our foreign commerce, while those running west and south, coincide with the natural lines of our internal trade. As we travel in this direction, each succeeding mile presents its appropriate product; the aggregate of all being considered necessary to supply the wants of each individual. The north furnishes the south with wheat and stock. The south sends to the north cotton, rice and sugar. In traversing three or four States we have all the productions of the temperate and torid zones. The people in the southern States are now actively engaged in finishing railroads north, for the purpose of opening avenues for the trade of which we have spoken. Nashville, Tennessee, is soon to have a railroad to Savannah and Charleston, and to Mobile, on the Gulf of Mexico. To meet these lines and extend them to Louisville, the most active measures are now in progress, and Louisville has just voted the sum of $1,000,000 to this object. The great inducement to this is the belief that the road to Nashville will, in connection with the Jeffersonville, place Louisville on the great avenue of railroad communication between the north and south, and secure to her all the advantages that must result from such a position. For the purpose of securing, with still more certainty, to herself this end, she has also voted to the Jeffersonville road the sum of $300,000, to aid in the extension of its line from Columbus to the Ohio State line at Union, via Cambridge City or Richmond, a

distance of 90 miles. At the latter point the road will intersect with the central Ohio lines running west, and the line from Cincinnati, via Hamilton, to Indianapolis. At Union it will unite with Bellefontaine and Indianapolis railroad, connecting with the lakes and the roads of northern Ohio. The amount voted to the Jeffersonville road is ample, with which can be raised on the line of the extension, to secure it construction. In a northwesterly direction the Lafayette railroad will be eventually extended to the south shore of Lake Michigan, thus opening a communication with the roads running around the south end of that lake, and extending east and west through Illinois and Michigan.

An examination of a map will show that the Jeffersonville is the bond of union between the railroad systems of the opposite portions of the country. Louisville is, to a great point of radiation, south and east; Indianapolis north, northwest, and north-east. Upon this road, therefore, must be thrown, to a very large extent, the accumulated business of all these lines.

Reading Railroad.

An amendment to a bill passed last year, extending the payment of the bonds of the Reading, due last year, until 1870, the object of which was to restrain the company from making dividends on the stock while any of the bonds of 1850 remain unpaid, was called up in the Pennsylvania House on Wednesday, and defeated by a vote of 33 to 60.

The Stock and Money Market.

The fancy stock market has had a strong downward tendency this week. Of railroad stocks the greatest decline has been in the Erie and Reading, which in a short time have fallen 8 or 10 per cent. Other stocks on the fancy list have also dropped off rapidly.

This decline does not indicate so much the actual state of the money market, as the distrust, which the excessive prices, at which stocks have been sold, have created on the part of banks and monied men. It has been easy for sometime to see that a revulsion must follow the existing state of things; and our banks and capitalists have been preparing for it by calling in their loans, and confining their favors to the wants of legitimate business.

We are sorry to see the prices of the Erie stocks so much under the control of speculators. There has been no reason in the condition, management or prospects of the road, why the rise in the stocks should not have been gradual and regular, from the point of its recent lowest depression, up to the present moment. In all these respects, it has been constantly growing in the public confidence. The extent of its final success, is, as is that of all unopened roads, problematical; but until the road is opened, there is no reason why the well-founded anticipations, which can be neither proved nor disproved, except by *results* to take place, should not keep this stock at a reasonably fixed point, dependent upon the abundance or scarcity of money only. It is certainly much more for the interest of the public as well as for the company that the improvement should be regular, even if slow, rather than the fluctuations which we constantly witness, should occur.

Speculations in stocks is the worst form of gambling, and is only tolerated upon the principle, that "one murder makes a villain—thousands, a hero." If similar combinations should be formed for the purpose of putting up the price of provisions or ordinary merchandise, which are an every day occurrence on the stock exchange, the parties would be ridden on a rail, or indicted as nuisances.—Think of the fact, that a large and influencial body of men spend their whole lives in efforts to depreciate the price of property below the true value, and an equally large and influencial one, in efforts to palm it off beyond its worth! If our Legislature should affix the penalty to the act that the offence deserves, and which it does to some not half so aggravated, it would make the selling of stocks deliverable on *time*, by a person who neither owns, nor expects to own a dollar's worth, an indictable offence. He sells "on time," upon the expectation of being able before the maturing of the contract, to depress the stocks so much, that the purchaser will be glad to "settle his account," that is, "buy off," and vice versa, with the purchaser. It is fatal to the character of a stock to have it become the subject of such operations, and in the end too often it becomes fatal to the value of the property which it represents.

Money for all legitimate purposes is still sufficiently abundant. Securities of new roads continue to be in fair request, western securities regarded with increased favor. The adaption of railroads to the wants of the west, the cheapness with which they are built, the large business which must be thrown upon them, the prudent and economical manner in which they are managed, will soon make their stock the favorite investment for capitalists. There are too many people who must make money out of the construction of our eastern roads, to allow their cost to be confined within reasonable limits. It costs, too, a vast sum to disturb the vested rights of an old and thickly-settled community. In the west, none of these items as yet make up the cost of a railroad; consequently all saved here, is so much added to the value of the investment.

The principal sales for the week have been a large amount of bonds, say 4 or $500,000 of the Ohio Central railroad, and a sale of a smaller amount of Jeffersonville city bonds, on account of the Jeffersonville railroad. The rates have not been made public; but we have good reason for saying that they are fully up to our quotations, which are from 85 to 90 net for 7 per cents. At these rates there appears to be as yet no great difficulty in making sales.

The action of Congress seems to forbid the idea of any change in the tariff during the present session of Congress. Rails continue without much change, and may be purchased deliverable free of charge, in all our leading Atlantic ports, at from $40 to $41 per ton. We do not now anticipate much change for the present in this article, though the general opinion seems to be, that any change will carry up the price rather than depress it.

"Stocks," says the Boston Courier, of the 30th inst., "were in good demand yesterday, the market was quite buoyant, and the transactions were large. There were large orders at the board, principally from New York, for the Edgeworth land stock, and nearly two thousand shares were purchased at prices ranging from $11¼ to $12¼. Canton stock receded a little, but the general impression appears to be, that much higher points of advance are yet to be reached, before any permanent decline will be sustained.

Western railroad shares are in demand at $107. The receipts of this line are rapidly increasing. Last week the income was $3000 more than it was in the corresponding week of 1850. There has been a steady gain in receipts since 1st December, to which time the annual accounts were made up.

SALES OF STOCKS IN BOSTON.

	Jan. 23.	Jan. 30.
Old Colony Railroad	66¼	68
Boston and Maine R.R.	106¼	106¼
Eastern Railroad	103¼	104
Fitchburg Railroad	111¼	111¼
Michigan Central Railroad		98
Northern Railroad	74	72¼
Vermont Central Railroad	37¼	36¼
Vermont and Mass. R.R.	32	31¼
Western Railroad		107
Ogdensburg Railroad		39¼
Rutland Railroad		56
Portland, Saco & Portsmouth R.R		99
Boston and Worcester Railroad.	106¼	106¼
Rutland Railroad Bonds		89
Vermont and Mass. R.R. Bonds.		
Sullivan R.R. Mortgage Bonds	79¼	
Ogdensburg Railroad Bonds		99¼
Vermont Central R.R. Bonds		92¼
Norfolk County R.R. Bonds		69
Boston and Providence R.R.		84¼
Philadelphia, Wilm'gton & Balt.		31¼
Concord R.R.	53¼	53¼
Connecticut river R.R.	78	78
Cheshire R.R.	65	64
Boston and Lowell		115
Boston, Concord & Montreal		41
Nashua & Lowell		109

SALES OF STOCK IN NEW YORK.

	January 24. Sales.	January 31. Sales.
U. S '67 Loan	116	115¼
Erie R.R.	89¼	83
Harlem R.R.	71	65
Stonington	46	46
L.I. R.R.	24	21
Norwich & Wor.	67¼	63¼
Albany & Sch'y R.R.	92	94
Del. & Hudson	135	134¼
Rochester and Syracuse	115	
N. Y. and New Haven	117½	116¼
Reading	69	58¼
Morris Canal	22	19
Erie income	99¼	98
Madison and Indiana		101¼

Massachusetts.

Boston and Worcester Railroad.—The annual report of the operations of this company for the past year, states the income for the year ending Nov. 1, 1850, to be as follows:

Passengers	$397.248 78	
Freight	330,780 61	
Rents	10,984 03	
Mails	10,513 42	
		$749,526 84
Reserved income last year, after deducting for ferry at Albany, paid Western railroad	$2,408 68	
Premium on sale of bonds over expenses of sale	8,419 95	
		10,828 63
Total income		$760,355 47
Working expenses		377,041 08
		$383,314 39
Deduct interest	$21,297 73	
" July dividend of 3 per cent.	135,000 00	
" January dividend of 3½ per cent	157,500 00	
		313,797 73
		69,516 66

The increase of income over the last year has been:

From passengers	$66,642 43	or 20 per cent.
The decrease from freight has been	557 40	or 1-6 of 1 "

The total gain from passengers, rents and mails, over last year is $67,415 69. The increase on passengers has been $51,359 43, on the local business, and only $15,283 on business from connecting roads. The local freight receipts were less, and

from connecting roads, more. The fares were raised last January, and experience has satisfied the directors that it has increased the receipts and been satisfactory to the public. This increase has not been from any additional trains run, as the whole number of miles run has been 3,996 less than last year.

The expenditures for repairs, &c., have been heavy; 358 tons of new rails have been laid over 12,000 new sleepers, two new stone bridges have been rebuilt, and the track at the Boston depot renewed, &c. The equipment of the road has been kept in efficient repair, and provision made for new engines, &c., and notwithstanding all these outlays, the general result is that the expense account, compared with last year, shows a diminution of $28,510 27, with increased income of $46,165 69.

The construction account has been reduced $25,684 17. The branches here show, with the exception of the Brookline and Milford, that the expenses of running exceed the income, yet the Brookline branch has made a profit of 6 per cent., and is increasing.

The liabilities of the company are, the—

Funded debt	$375,000 00
Floating "	91,984 29
Balance due other roads	108,674 56
	$578,658 85

To meet this, the company have stock of the corporation, issuable in connection with the funded debt, 375 shares; cash on hand, notes receivable, individual accounts, Norwich and Worcester railroad bonds, &c., &c., $700,704 77. From which should be deducted, the—

January dividend	$157,500 00	
Balance of income	69,516 66	
Amount credited to depreciation account	19,950 00	
		246,966 66
		$453,738 11

Which makes the difference between the means and liabilities, $124,920 74, and to pay which balance, they have the remaining bonds and stock authorized by the stockholders, $125,000; and in addition they have—

Iron, fuel, &c.	$117,247 51
Lands belonging to the company, estimated at	278,230 62
	$395,478 13

With these resources, it is believed that the stock need not be increased over $5,000,000.

The directors conclude their reports as follows:

" We congratulate the stockholders on the fair prospects and increasing income of the road. The last year may be considered a favorable one, especially in passenger business. It would be unreasonable to anticipate an increase during the current year, equal to that of the year just past. But we cannot doubt that we shall continue, as in past years, to realize a healthy sound growth in the business and resources of the road.

The net earnings of the year have been about 7¼ per cent. Had we thought it a sound policy to disregard the depreciation of equipment, and work the road with a more strict regard to present profit, rather than to its permanent condition and future expenses of repair, we might have shown a profit of 8 per cent. We could have divided this year 7¼ per cent., had we not been satisfied of the soundness of the policy stated last year, of having in reserve a fund to meet contingent liabilities, to which all roads are exposed, from fire or serious casualty.

But we were satisfied that you would prefer the ultimate safety of your investment, and the permanent soundness of the stock, to immediate profit. We have therefore withheld the sum of $69,516 66 (all but $10,828 63 of which is from the regular earnings of the year just passed,) as reserved income."

Old Colony Railroad.—The annual report of the Old Colony railroad has been published. The receipts for the year ending Nov. 30, 1850, were:—

From passengers		$196,432 09
" freight		65,430 81
" gravel		23,108 27
" mails, rents, &c.		11,199 27
		$296,170 79
The expenses have been		
Interest on bonds	$19,728 00	
Rents to South Shore and Dorchester and Milton Railway (estimated)	27,592 86	
General expenses	168,281 21	
		$215,702 07
Leaving net earnings for the year		$80,468 72
Deducting amount credited to contingent fund		10,000 00
Balance		$70,468 72

The receipts in 1849 were. $275,067 88
Expenses, less rents and interest 167,486 71

Which makes an increase of receipts over last year of about $22,000, and the expenses about $850. The amount of stock on hand of various kinds amounts to $36,579 26. The balance of income on hand, after making sundry deductions, leaves a balance of $21,216 18, which has been charged off for general depreceations. The whole floating debt has been paid, with the exception of some unsettled claims, but the cash on hand and some due, perfectly good, will more than pay every claim known to exist, excepting bonds.

The whole amount of bonds due January 1, 1854	$328,800
Bonds of the D. and M. R. R. endorsed by the Co	30,000
Bonds to the South Shore, guaranteed by the Co	6,800
Total	$865,600
The whole number of shares outstanding, 18,542	$1,854,200

Railroads in Georgia.

The Macon Journal gives the following table showing the extent of railroads in operation and progress in Georgia.

1. Central road from Savannah to Macon, completed	191	miles.
2. Georgia road from Augusta to Atlanta, completed	171	"
3. Macon & Western road from Macon to Atlanta, completed	101	"
4. Western & Atlanta road from Atlanta to Chattanooga, completed	140	"
5. South-Western road from Macon to Oglethorpe, nearly completed.	51	"
6. Muscogee road from Columbus to Fort Valley, on South-Western in progress	71	"
7. Atlanta & West Point road from Atlanta to West Point, in progress	85	"
8. Milledgeville road from Gordon to Milledgeville, in progress	18	"
9. Eatonton road from Milledgeville to Eatonton, in progress	23	"
10. Wilkes road from Double Wells to Washington, in progress	18	"
11. Athens branch from Union Point to Athens, complete	39	"
12. Burk road from 80 mile station on Central road to Augusta in progress	53	"
Total completed and in progress	960	miles.

From this, it appears that Georgia has in operation the Central, Georgia, Macon & Western, and Western & Atlantic roads and the Athens branch, making an entire distance of 642 miles. The South-Western, 51 miles, will be in operation in 90 days. The Atlanta and West Point road, 30 miles—the Muscogee road, 25 miles—the Burke road, 23 miles, and Milledgeville road 18 miles, making a total of 147 miles, will be put in operation the present season This will make the whole extent of railroad in operation in Georgia by 1852, 789 miles, leaving 174 miles to be completed. This will, no doubt, be accomplished in two years, when the system of internal improvements in the State will be almost completed.

The roads already in operation are all prosperous, and are realizing from 8 to 16 per cent. clear profits per annum. Thus is demonstrated the wisdom and importance of a proper system of improvements. Georgia, after expending nearly fourteen millions of dollars, is now twice as rich as when she commenced her noble enterprises.

[To the above list should have been added the Rome branch road, completed, 17 miles. This will make the length of railroad now in operation 659 miles.—Eds. Repub.[

Missouri.

This hitherto apparently remote State is soon to be one of the foremost in railroad enterprises. The two leading lines engrossing the attention of her people are, the road leading from St. Louis to the west line of the State, or the south bank of the Missouri river, and the other from Hannibal, on the Mississippi, to St. Josephs.

At the recent session of the legislature, the governor of the State recommended that "For every $50,000 collected and expended upon the road by the company, let the State issue its bonds to the company for such amount as will, by a proper calculation, afford the means, from time to time, of carrying on the work to its completion."

That this proposition will meet the approval of the legislature, there seems to be no doubt. A bill to this effect has been favorably reported upon by the committee on internal improvement, at the head of which is Mr. Allen, the president of the *Pacific railroad* (the line running from St. Louis.) The report we give below.

The following report was submitted in the Senate, on the 8th inst., by Mr. Allen, of St. Louis, from the committee on internal improvements:

Mr. President—The committee on internal improvements, to whom was referred the bill to expedite the construction of the Pacific railroad, and also the bill to expedite the construction of the Hannibal and St. Joseph railroad, have had the same under consideration, and instruct me to report the same back to the Senate, united in one bill, with such amendmends only in the phraseology as were necessary to suit the change in their relations, and recommend the passage thereof.

The committee authorise me to add further, that they are unanimously of the opinion that these two railroads are modes of improvement of the most profound interest and importance, perfectly within our ability to accomplish, and clearly of general and permanent utility. The late experience of the world has placed railroads far beyond all other modes of locomotion and transportation. For passengers, and the more valuable articles of merchandise, they are far superior to the most splendid water courses. Wherever located, they exercise an astonishing influence in ameliorating the condition of society, in stimulating productive industry, in developing the resources of a country, and in augmenting the public wealth. They are not less valuable to an agricultural community than to one engaged exclusively in commerce. The former is obliged to pay for the transportation of his produce to market, and also for the transportation of the commodities which he procures in exchange for his own consumption. He is thus doubly interested in diminishing its cost. Taking every thing into consideration, railroads are a cheaper mode of transition and transportation than any other. They are uniform in their charges, punctual and expeditious in their work, and while they may be considered as almost perfectly safe, as well in regard to human life, as in reference to the carriage and delivery of property, they also afford a wonderful saving of time, labor, money, and wear and tear of mind and body.

By calculations made upon the experience of

railroads in England, it is regarded as a truth sufficiently exact for all practical purposes, that the chances against a passenger losing his life in travelling 300 miles upon a railroad are 217,879 to 1; and out of 400,000 packages of merchandise transmitted by railroad, only 1 was lost.

Missouri, at this time, occupies a rare position. As is remarked by the Governor, the eyes of the nation are now upon her. Her destiny is deeply depending on the movement she now makes. The question of location for a continental road to the Pacific, is now pending in Congress. A survey of the southern route is now going on, and is partly completed. The northern project, with which the name of Whitney is identified, is recruiting new strength. It is for Missouri to say whether she will interpose at this time, a voice louder than can be raised from any other State west of the Mississippi.

Railroads have been resorted to by nearly every State in the Union, as the greatest modern levers of power to speed them onwards in the race of civilization. Over two hundred roads are now in active and useful operation in the United States, constructed at a cost of something like three hundred millions of dollars. They are compensating the States which have created them a hundred fold, while they are earning at the same time a fair profit on the capital invested. In this spirit of enterprise and race of public improvement, Missouri is behind nearly all her sister States. The committee confidently hope, that from this period, she will enter upon a new career, and take that high rank which she is evidently capable of assuming, and which her geographical position and unexampled natural resources will enable her easily to maintain.

The two railroads contemplated, seem to the committee to be entitled to the aid of the State. The companies engaged in them are further advanced in their organization and preparations for work, than any in the State known to this committee. Such is the interest felt in them by the people, and such their means already subscribed, that the committee are firmly of opinion that the passage of the bill herewith reported will ensure the construction of both these works within a period to be limited only by the practicability of procuring labor. The credit of the State is firm and good. Her bonds can be easily negotiated, and the money realized as needed by the companies, and the companies assume to exonerate the treasury of the State from the payment of a dollar in cash. No new taxation is proposed—none will be necessary, though the resources of tte State will be increased. The works themselves are looked upon abroad as works of great merit. The passage of this bill will give to them a new confidence, and bring to them fresh support. Subscriptions to the capital stock will immediately increase; the general Government may immediately follow with her proposed grants of public lands; and of course, as the resources of the companies thus increase, the necessity for the issue of all the bonds authorized by the bill will be proportionably diminished.

In regard to the mode proposed ot aiding these works, the committee feel assured that the experience of other States has proved it to be decidedly the best. The expenditure of private capital to the amount of one-half or one-third the cost of the work, has been found to ensure an economical management. By a loan of the public credit upon the security furnished by the works themselves, the State does not become involved in the direction.

Private interest is generally found to be more keenly alive to the proper direction of works of this character than the public, acting through officers who do not always feel an immediate responsibility. The bill is framed in accordance with the recommendation of the Governor, and with the forms of proceeding in similar cases, in States of high character for their enlightened experience and just administration of public affairs.

Although there are some subjects of a kindred nature before the committee, they are of opinion that these two railroads ought to be distinctly presented, and considered separately from other schemes of internal improvement. And, although the committee feel disposed to encourage all practicable measures of improvement, yet they strongly hope, and respectfully recommend, that the present bill may not be clogged or encumbered with them. All of which is respectfully submitted.

THOMAS ALLEN,
Ch'n Committee on Internal Improvement.
January 8th, 1851.

The construction of these roads, looking, as they do, to a terminus on the Pacific coast, is a matter of great interest to the whole country, and gives a new importance to the lines now in progress, and which are to connect them with the great Atlantic cities.

Albany and Schenectady Railroad.

The annual report of this company we have received, and it presents the annexed favorable results:

The receipts for the six months ending the 31st of January, 1850, have been as follows:		
From passengers		$71,519 89
From freight		38,370 23
For mail service		1,700 00
For rents		1,565 29
		$113,155 41
The disbursement for operating the road and relaying three miles of track have been	$42,097 26	
Interest paid on bonds	23,050 56	
Amount contributed to reserve fund	2,500 00	
		$67,647 82
Net earnings for six months		$45,507 59
Equal to 4½ per cen.		
Deduct dividend of 3½ per cent		35,000 00
Balance		$10,507 59

Being a surplus from the net earnings of the half year's business to be carried to the credit of reserve fund, which will leave the balance to the credit of that fund of $36,696 17.

The receipts for the fiscal year commencing February 1, 1850, and ending January 31, 1851, have been		$214,786 52
Repairs, expenses, interest and contribution to reserve fund to August 1, 1850, as per report	$63,067 63	
For iron to re-lay track, charged to expenses, being balance on hand, Aug. 1, 1850	3,563 48	
Repairs, expenses, interest and contribution to reserve fund, February 1, 1850	67,647 82	
		$134,278 93
Balance		$80,507 59
Being net earnings for the year of 8 per cent on the capital stock of the company, out of which 7 per cent dividends have been declared to the stockholders, amounting to		$70,000 00
Balance to credit of reserve fund		$10,507 59
The receipts for 6 months, ending Jan. 31, were		$113,155 71
The estimate 1st Aug. last was		108,900 00
Excess of receipts over estimate		4,255 71
The receipts for the 6 months, ending Jan. 31, 1851, were		$113,155 71
The receipts for corresponding period, ending Jan. 31, 1850, were		95,862 70
Increase 18 per cent		$17,293 01

The business of the year has met the most sanguine expectations of the friends of the road; the increase has been 10 per cent, and the average annual increase for seven years has been 17 per cent per annum. There does not appear any reason why the increase of the present year should not be as large as the preceding one; on the contrary, the opening of the Rome and Cape Vincent road to Watertown early in the spring, and the re-laying of the Saratoga and Schenectady road with heavy T rail, forming a connection at Schenectady with this company, would warrant an estimate based upon larger anticipated increase. To be within, rather than beyond, what will be realized the coming year, we present an estimate based upon an increase of only 12 per cent, viz:

Receipts for the year ending Jan. 31, 1851	$214,786 52
Twelve per cent increase	25,774 38
	$240,560 90
Deduct for expenses, repairs, interest, &c., (which were $134,278 the past year)	$140,000 00
	$100,560 90

Leaving a nel balance, equal to 10¼ per cent, upon the capital stock.

The present road, bed and track, are in excellent condition, and will require no material repairs during the ensuing year. Arrangements are now making to lay, with heavy iron, the remaining 8 miles of double track, which, it is expected, will be completed early in the coming season—this done, the company will have a double track, of the first class in every respect, throughout the entire length of their road, and and equipment of the best quality, and in perfect order, amply sufficient for the increasing business of the company.

Hanover Branch Railroad.

This railroad will be 13 miles long, to extend from the village of Hanover, in York county, to the Baltimore and Susquehanna railroad, which it is to intersect about 20 miles south of York. The directors have placed the work under contract, and appointed T. E. Sickels, of this city, engineer of the road.

The route was examined instrumentally about a year ago, and it was ascertained that a line could be located without requiring steep grades or curves of less radius than 1,000 feet, while the cost of construction per mile would be much less than the average cost of railroads in that State.

The village of Hanover is surrounded for many miles by a populous and highly productive agricultural region, for which this road will become the outlet. There is no doubt but that the increased facilities for the cheap and rapid transportation of commodities to the Baltimore market to be afforded by this railroad, will secure profitable returns for the investment required in its construction.

Massachusetts.

The Worcester and Nashua railroad company held their annual meeting in this city on Thursday, and chose the following gentlemen directors for the ensuing year:

Stephen Salisbury, of Worcester; Isaac Davis, of Worcester; Jacob Fisher, of Lancaster; Thomas Chase, of Nashua; Alexander DeWitt, of Oxford; Edward Lamb, of Boston; Seth W. Fowle, of Boston; George Bowen, of Worcester; Edward Freeman, of Springfield.

The meeting was fully attended, and there was considerable discussion on a proposition to instruct the board of directors to make arrangements to carry passengers and freight between Worcester and Boston and Nashua and Boston, by way of the Fitchburg railroad from the junction at Groton, at the same rates as are charged on the direct routes between those places. Without coming to a decision, the meeting adjourned to Friday in Nashua.

Barre and Gardner Railroad.—The following gentlemen were chosen directors, at a late meeting of the proposed railroad from Worcester to Barre and Gardner:

John W. Lincoln, Stephen Salisbury, Wm. A.

Wheeler, W. T. Merrifield, H. N. Tower, of Worcester; John Brooks, of Princeton; Seth Caldwell, J. W. Jenkins, Jr., John Smith, of Barre; Nathaniel Hammond of Boston; Joab S. Holt, of Holden; Henry Prentiss, of Hubbardston; Levi Heywood, of Gardner. John W. Lincoln, President; Caleb Dana, Treasurer and Clerk.—*Worcester Palladium.*

Ohio.

Railway from Sandusky to Toledo.—A survay of that portion of the Lake shore line, from Sandusky to Toledo, under the superintendence of William Durbin, Esq. has been completed, the substance of which we give below. It will be seen that there exists no objection to this line on account of expense of construction. Below we give a portion of the report of Mr. Durbin

The line of survey starts near the intersection of Tiffin avenue and Mill street, on the west line of the corporation of Sandusky; thence to Venice, crossing Coal creek, near its outlet; thence curving towards the north, with a radius of 5,730 feet, it reaches the south shore of Sandusky bay at Reed's Point—distant four miles and 304 rods from the starting place. It then crosses the bay from Reed's to Mixer's Point, a distance of 7,380 feet, and, pursuing the same course for three-fourths of a mile farther, it curves to the west with a radius of 5,730 feet; thence in a direct line to Port Clinton, the county seat of Ottowa. The line crosses the Portage river near its month, and following the south shore of Lake Erie, a mile and a quarter, it then bears to the south, occupying, for two miles, the timbered ridge between Portage river and Le Carp marsh; thence in a *direct line* crossing Le Carp creek at a favorable point a few rods north of the Port Clinton & Toledo free turnpike bridge, 27¼ miles to the east bank of Maumee river, opposite to Toledo. The whole distance from the western line of Sandusky city, to the east bank of Maumee river is 43 miles and 5,200 feet.

Of this distance,

41 miles	3,760 feet	are straight line.	
0 "	2,200 "	curvature of	8,600 ft. rad.
1 "	4,550 "	"	5,730 "
43	5,200 "		

TABLE OF GRADIENTS.

Level,	to 2 feet	per mile,	27 miles,	5,268	feet
2 feet	to 5 "	" "	8 "	3,432	"
5 "	to 8 "	" "	5 "	3,694	"
8 "	to 10 "	" "	0 "	4,752	"
	13,5 "	" "	at Maumee r.	3,894	"
			43	5,200	"

From the above table it will be seen that
64 p'r c't. of the grades do not exceed 2 ft. per mile.
83 " " " " " 5 " " "
96 " " " " " 8 " " "

The greatest elevation attained, above the waters of Lake Erie is 37,45 feet. There is *one continuous* grade line 12 *miles long*, ascending 22.5 feet from the 23d to the 35th mile—*less than two feet per mile*—and so nearly does the natural surface of the country conform to the gradient that, excepting the crossings of Crane and Cedar creeks, the embankment on these twelve miles is less than four feet at its highest point. The ravine of Crane creek is 600 feet wide, with an average hight of embankment of 8.4 feet; that of Cedar creek is 630 feet wide, with an average filling 9.6 feet.—These are the two heaviest embankments on the rout.

An effort was made to obtain a straight line from Port Clinton to Toledo—31 miles—but the marshes of the Portage on the left, and of Le Carp on the right rendered it expedient to locate the road on the ridge dividing these streams; this is done by using a reverse course of 8,600 feet radius which gives us dry timbered land for our line and lengthens it only 190 feet. From the west end of the reverse curve we have one straight line, of 27¼ miles, to Maumee river.

The crossing of Sandusky bay is regarded by some persons as a serious obstacle, in the construction of a railroad on the *direct rout* between Sandusky and Toledo.

Aside from the fact that numerous similar crossings have been made without difficulty, in other sections of the country, a careful examination of this particular locality, and a series of sonndings taken at short distances, have satisfied me that it is entirely feasible to construct a permanent railway across it, between Reed's and Mixer's "Points," at a moderate cost. The greatest depth of water in our line of crossing is 10.6 feet, and the average depth of the whole distance is 8.23 feet. The bottom is composed, chiefly of stiff clay of great tenacity, into which we forced an iron rod from two to five feet: this in some places is over laid with a softer material.

No rock, or stone, was detected in any of our soundings, nor is there any reason to apprehend the least difficulty from that source in driving piles.

By a combination of *cribs* filled with stone and *piles* firmly driven, it is believed that a substantial and entirely safe foundation for the road can be made. It is proposed to place the cribs, or piers, 200 feet, and the piles 7 feet apart from centre to centre, in the direction of the road. A draw-bridge, with an opening of sufficient width to pass the largest craft that can navigate the upper bay and river, will be placed in the channel, and the entrance to it so protected by long and solid piers on each side of the railway, that vessels can approach, or leave, it with safety and without improper delay. It will also be necessary to place a draw-bridge at the crossing of Portage river, and the accompanying estimate embrace the cost of such a structure.

The estimate for graduation contemplates a width of 22 feet, at bottom, in excavations, and 15 feet, at top, on embankments, with the usual slope for each.

ESTIMATED COST.

Clearing, Grubbing & Graduation	$45,137
Masonry and Bridging	34,687
Ballasting 42½ miles	34,020
Cross-ties	19,890
Side tracks, water stations, engine-houses & turning platforms	5,700
Right of way, salaries, engineering and contingencies	12,000
Total cost	$151,434

Or $3,442 per mile.

English Railways.

Herapath's Railway Journal publishes a table showing the traffic returns of the principal English railroads for nine years past, together with the number of miles of new railway annually opened. By this table it appears that the whole extent of line in operation at the commencement of 1843 was 1,417 miles. Since that time the number of miles opened were, according to the above table, in 1843, 56 miles; in 1844, 194 miles; in 1845, 263 miles; in 1846, 593 miles; in 1847, 839 miles; in 1848, 975 miles; in 1849, 835 miles; and in 1850, 1,078 miles; but the latter include several railways which were open in 1849, but the traffic returns were not published. The number of miles opened during the past year in the United Kingdom was about 591. The annual increase in the traffic receipts has been very considerable, partly arising from the continued development of traffic on the trunk lines, and partly from the additional receipts derived from the opening of new lines and branches. The increase of traffic in the year 1843 over that of the preceding year amounted to £500,874; in the year 1844, to £768,337; in 1845, to £1,058,342; in 1846, to £1,020,650; in 1847, to £1,285,797; in 1848, to £1,083,335; in 1849, to £954,811; and in 1850, to £1,741,418.

The average traffic receipts per mile per annum were as follows:—For 1842, £3,118; for 1843, £3,085; for 1844, £3,278; for 1845, £3,469; for 1846, £3,305; for 1847, £2,870; for 1848, £2,556; for 1849, £2,302; for 1850, £2,227.

The amount of capital expended on the railways referred to in the table up to July, 1842, was £52,380,100; in 1843, £57,635,100; in 1844, £63,489,100; in 1845, £71,646,100; in 1846, £83,165,100; in 1847, £109,528,000; in 1848, £148,200,000; in 1849, £181,000,000; and in 1850, £219,762,730.

The average cost of the railways per mile in operation would appear to be, in 1842, £34,690; in 1843, £36,360; in 1844, £35,670; in 1845, £35,070; in 1846, £31,860; in 1847, £31,709; in 1848, £34,234; in 1849, £35,214; and in 1850, £35,229. The increase in the average cost per mile is a bad feature in railway statistics, because it shows that the continual additions to the capital accounts of the old and completed lines, far outweigh all the professed advantages of constructing thousands of miles of new lines and branches, at considerably less cost than the average expenditure per mile on the old trunk lines.

In addition to the above there are a number of lines that made no traffic return. The extent of these lines is 495 miles. Tho length of these, added to the above, would make the aggregate length of line 6,753 miles; the cost, £330,522,731; and an average receipt per mile of £1,944, and a cost of £34,238.

Lead.

Another extract, bearing the date, (Dubuque, Jan. 12,) announces recent discoveries of lead, giving a description of one of the heaviest leads that has ever been struck in the mining country: "This lead was struck by Thomas Evans, (an old miner). After the shaft was sunk directly into the cave, as it is a continuance of caves, a general invitation was given to all who wished to see it before removing any of the mineral. The first day, 270 persons, ladies and gentlemem, myself among the number, visited it. The shaft enters a large cave, from 12 to 15 feet high, and almost completely covered with mineral. There is one piece, lying along the north wall, 48 feet long, and, without exaggeration, I would say that it is three feet square. This cave is eighteen hundred feet long, but the mineral does not show in the entire length. There is one more place which I must speak of. There are two sheets hanging down from the cap, about 6 feet 10 or 12 inches thick, and 60 feet long. They are as white as snow. The cave is about 15 feet wide, and, in most places, is completely covered, bottom and top, with the precious stuff. I think he can take one thousand dollars worth a day for twenty days in succession. There have been several leads struck in this part of the mines this winter, but the mines through Wisconsin and Illinois have not done much."

Zinc Compounds not Injurious to Health.

At a late meeting of the Academy of Sciences at Paris, M. Sorel, replying to some authors who, at preceding sessions of the Academy, had made observations tending to show that zinc was not innocuous, stated that, for fifteen years, he had employed in his establishment, for the galvanization of iron, several hundred workmen, a large number of whom were engaged in pulverizing and sifting the gray suboxide of zinc, for galvanic painting, and in no instance had any of the workmen of the establishment, although in the midst of an atmosphere containing much of the oxide, suffered at all from it. The white oxide of zinc had also been fabricated for some months, without any ill effects, although the men breathe considerable quantities of the oxide.

Population of Missouri.

The population of this State by the last census, is 681,547. The increase for the past 40 years is as follows:

1810.	1820.	1830.	1840.	1850.
20,845	66,856	140,455	384,702	681,547

Of the aggregate, 593,930 are free, and 87,617 slaves.

English Railroads.

The Railway market has been the scene of great excitement this week, prices having gone higher than they have been since the commencement of the memorable panic. As an instance, we may mention that London and North Western Stock, which closed on Friday last, at 120, opened on Monday morning at 122, and within an hour were done at 127, while the closing price to-day is 126 to 127. Great Western Stock has also had a sudden elevation. Shares which a few weeks since were thought dear at 50, have met with eager buyers at 77. The same kind of change is observable in the quotations of nearly every description of shares—very much to the satisfaction of shareholders and "the Bulls." The cause of this sudden alteration is evidently the increasing confidence of the public, who have come into the market and taken up shares. This has made stock scarce for transfer; and the gloomy opinion of "the Bears," which were so generally adopted some months since, being now regarded as fallacious, those who sold stock under a panic, are now replacing it as they can. The speculators come in to assist them in raising prices, and hence it is not at all improbable that the quotation may go much higher between this time and the next payment of the railway dividends in January.—*London Atlas, December* 14.

Census of Maryland.

Counties.	White population.	Free colored.	Slaves.	Total population.
Alleghany.....	21,752	397	734	22,873
A. Arundal....	16,542	4,602	11,244	32,388
Balt. City.....141,441		24,625	2,946	169,012
Balt. Co.....	34,222	3,600	3,767	41,589
Carroll.....	18,676	965	975	20,616
Caroline..... ..	6,096	2,788	808	9,692
Calvert.....	3,610	1,520	4,488	9,618
Cecil.....	15,482	2,612	843	18,937
Charles.....	5,665	913	9,584	16,162
Dorchester.....	10,788	3,803	4,282	18,873
Frederic.....	31,595	3,637	3,261	38,493
Harford..... ..	14,414	2,785	2,166	19,365
Kent..... ..	5,598	3,132	2,627	11,357
Montgomery ..	9.435	1,311	5,114	15,860
Pr. George....	8,902	1,138	11,510	21,550
Q. Anne..... ..	7,040	3,174	4,271	14,485
St. Mary's.....	6,280	1,590	5,811	13,681
Somerset..... ..	13,417	3,453	5,588	22,458
Talbot.....	7,087	2,590	4,134	13,811
Washington...	26,969	1,885	2,089	30,943
Worcester.....	11,824	3,593	3,453	18,870

Total white population, 416,835; do. free colored, 74,113; do. slaves, 89,685—total population in 1850, 580,633. White population in 1840, 317,717; do. free colored, 62,020; do. slaves, 89,495—total population, 469,232.

Total increase in 10 years, 111,401. Increase in white population, 99,118. Do. in free colored population, 12,093; do. in slaves, 190. Over 39,000 of the gain in the State is due to the City of Baltimore.

The representative population of Maryland is 534,759, so if the ratio under the new apportionment comes up to 100,000 this State will lose one member of Congress.

Population of Missouri.

The St. Louis Republic contains returns of the population of the State of Missouri with the exception of seven counties which are reported or estimated, and the footings are as follows:

	Total inhabitants.	Free inhabitants.	Slaves.
1850.....681,547		593,930	87,617
1840.....383,702		325,462	58,240
Gain 10 ys.	397,845	268,468	29,377

The representative population of Missouri is 656,500, so she will probably be entitled to seven members of the House of Representatives under the new apportionment. She has now but five.

Census of Kentucky.

The following are the statistics of the population of this State by the census of 1850:

Total population of the state.....	993,344
Total number of Free inhabitants.....	782,107
" " Slaves.....	211,237
" " Deaths during the year...	15,271
" " Farms in the state.....	82,059
" " Dwellings.....	130,743
" " Establishments of productive industry.....	3,495
Total population in the state in 1840.....	779,828
Total number of Free inhabitants in 1840.	597,570
" " White " " .	590,253
" " Slaves " " .	182,258
" " Free colored persons in 1840.....	7,317
Total increase of inhabitants in ten years..	213,516
Increase of free " " ..	184,537
Increase of slaves " ..	28,979
Representative population in 1840.....	699,608
" " 1850.....	908,849

Population of the United States by the new Census.

The Washington correspondent of the Evening Post gives the following approximate statement of the population of the several States and Territories under the new census. We think he is below the mark, but give his figures unaltered:

Some weeks ago I forwarded you certain tables of estimates and returns of the seventh census, which I supposed would be gratifying to the curiosity of your readers. I now send you some additional information on the same subject, which will prove, I think, useful and interesting to them:

	1850.	1840.	Increase per cent since 1840. Free Slave-	
Maine.....	583,000	502,000	16	
New Hampshire.	317,000	285,000	13	
Massachusetts..	995,000	738,000	39	
Rhode Island....	147,000	109,000	33	
Connecticut....	386,000	310,000	25	
Vermont.....	314,000	219,000	8	
Total of N.E. States..	2,742,000	2,235,000		
New York.....	3,099,000	2,429,000	27	
New Jersey.....	489,000	373,000	31	
Pennsylvania..	2,260,000	1,724,000	31	
Ohio.....	2,150.000	1,519,000	41.5	
Delaware.....	90,000	78,000	15	
Middle Free States....	8,033,000	6,123,000		
Indiana.....	938,000	686,000	44	
Illinois.....	850,000	476,000	68	
Michigan.....	397,000	212,000	87	
Wisconsin.....	335,000	31,000	884	
Iowa.....	200,000	43,000	360	
California.....	200,000	25,000	800	
Western Free States.	2,940,000	1,473,000		
Total Free States....	13.770,000	9,831,000		

	Free.	Slaves.	Totels.		
Maryland.....	593,000	91,000	594,000	32	2
Virginia.....	997,600	494,000	1,494,000	23	12
North Carolina	532,000	288,000	870,000	14	25
South Carolina	280,000	359,000	639,000	5	10
Georgia.....	533,000	350,000	888,000	30	25
Florida..	40,000	30,000	70,000	40	33
Alabama.....	438;000	931,000	769,800	30	30
Eastern slave States..	3,373,000	1,946,000	5,319,000		
Mississippi....	230,000	253,000	483,000	30	30
Tennesse.....	770,000	220,000	999,000	21	20
Kentucky.....	740,000	220,000	960,000	25	20
Missouri.....	600,000	72,000	672,000	84	23
Arkansas.....	152,000	46,000	198,000	96	133
Louisiana.....	217,000	210,000	427,000	23	25
Texas.....	100,000	70,000	170,000	125	133
West'n slave States..	2,809,000	1,091,000	3,900,000		
Total of Slave States.....			9,219000		
Total of Slaves in 1840.....			7,331,000		
Increase in 10 years, 25·7 per ct..			1,888,000		

TERRITORIES.	
Minneston.....	6,000
Utah.....	30,000
New Mexico.....	90,000
Oregon.....	15,000
	141,000
Add for Free State.....	13,770,000
	13,911,000
	9,219,000
Total population of the U. S..	23,130,000

This shows an increase of all classes of population, exclusive of Indians, of 6,067,000, or about 35 per cent. The number of inhabitants in Texas, California and New Mexico, when these territories were acquired by the United States, may be set down at about 150,000, and that number has been allowed for in the calculation of the absolute and relative increase during the ten years.

Movable Fire Boxes.

We have received a printed explanation of the late invention of movable fire boxes for locomotive and marine boilers. The inventor is John J. Dehaven of Philadelphia. The pamphlet is accompanied by a report of Gen. Boumfort, superintendent of the Columbia and Philadelphia railroad, where the new fire boxes have been tried with entire success on the engine Muhlenburg.

The invention is important and its general introduction is no doubt but a little way off. Its principal advantage are the substitution of Anthracite for Bituminous coal, thereby saving 30 to 50 per cent in the cost of fuel: and the saving of time in replacing a movable fire box with a new one, which can be done in any ordinary engine in 24 hours, instead of laying by for a much longer time undergoing repair. These advantages are of special importance, and the absence of just such an invention has hitherto prevented the general introduction of Anthracite coal for fuel, notwithstanding its acknowledged advantages over every other. We have no doubt the subject will receive the early attention of the public, such as its importance demands, and the general substitution of the movable fire boxes supersede the use of all others. The inventor will sell the right to States or companies. Models can be seen and information obtained at his residence, Oxford street, Kensington, Philadelphia.—*Pottsville Journal.*

Railways in France.

In the course of the present year of 1850, the following lines have been opened for traffic:—From Chalons on the Maine to Vitry, from Metz to Nancy, from Nerondes to Nevers, and from Chauny to St. Quentin—making a total length of railway, of 152 kilometres or nearly ninety-six English miles. In the course of next year, there can be little doubt that the following lines will be completed and opened: namely, the sections of line from Vitry to Bar, from Metz to St. Avoin, from Strasbourg to Sarrebourg, from Tonnerre to Dijon (the capital of ancient Burgundy), from Tarascon (on the Rhone) to Beaucaire, from Tours to Poictiers, from Angers to Nantes; and in all probability, to these will be added the line from Chartres to La Loupe, making altogether a length of additional line of 513 kilometres, or 333 English miles, for 1851. The *Journal des Chemins de Fer*, commenting upon their prospects, remarks, that these works are but the legacy of past railway enterprise, and, with the exception of a short trunk line of 10 kilometres, from Guentin to Nevers, are in no wise indebted for their existence or advancement to the new administration of public works in France. For three years the Government have set on foot not a single railway undertaking; they have carried on the works on the Lyons line with no inconsiderable difficulty, and they have been under the necessity of abandoning altogether the lines from Bordeaux to Cette, the Lyons and Avignon, the Dijon and Mulhouse, the Western line, and the line from Cayenne to Rouen—all classed, credit voted for them, and even adjudicated upon—conceded, or on the point of being so, at the commencement of the year 1848. From a table

compiled by our Paris contemporary, we find that 16 lines of railway, representing a total capital at par of 713,000,000 francs (£28,520,000 sterling) The market value of that capital before the revolution stood at 743,000,000 francs [£28,640,000], showing a premium of £120,000 sterling. Under the depressing circumstances of the political crisis of 1848, the destruction of property, and the threatened expropriation of the railways, without a fair compensation by the State, the market price fell in December, 1848, to 485,395,000 francs [say £19,440,100], showing a depreciation of 288,595,000 francs [say £9,080,000], upon the par value of the stock, and of 258,075,000 francs [£9,200,000], on the market value in January, 1848. In December, 1849, after a year of regular government, the market value rose to 542,855,000 francs [£21,714,200]. In December, 1850, after two years of regular government, the market value is only 574,135,000 francs [£22 965,400], showing a depreciation of 139,765 000 francs [£5.590,600], on the par value, and 169 335,000 francs [£6.773.400], on the market value of the same stock before the revolution.

Coal Trade for 1851.

The quantity sent to market, this week, is 25,417,215 tons, showing a falling off of about two thousand tons. This is caused, in some measure, by the mild weather, and the determination on the part of the dealers not to accumulate much stock at Richmond during the winter season. The operators are making their arrangements for the spring business; but until the rates of toll and transportation are promulgated, nothing definite can transpire with regard to the state of the trade. We are credibly informed that the rates by railroad will not exceed $1 50, and may be less, in order to check the current in favor of the new road to Philadelphia. The rates by canal will be 95 cents per ton less than by railroad. Negotiations are pending between the different regions to limit the quantity, and arrange prices, but it is doubtful whether they will succeed. The Delaware and Hudson company consider themselves strong—calculate upon a considerable increase from the Pennsylvania company, located at Pittston, and also from their own works. They have also declared recently, that they are entitled to the New York market, and are determined to have it. The high rates charged by our carrying companies will give it to them in a short time, unless a remedy for the evils under which we labor is applied in time. The following is the amount sent by railroad for the week ending on Thursday morning last:

	Week.	*Total.*
Port Carbon	10,284 18	84,367 02
Pottsville	1,649 11	23,686 03
Schuylkill Haven	10,556 10	88,210 12
Port Clinton	3,526 07	35,978 19
Total	25,417 15	231,250 11
To same time last year		111,213 04

[*Pottsville Journal.*

First Idea of the Electric Telegraph.

Since the success of the Magnetic Telegraph, various claimants have come forward to contest the honor of the discovery of the original idea. By a paragraph in the London Philosophical Journal, translated from a German work by Schwenter, and published in 1636, it will appear that the crude idea of the electric telegraph was entertained previous even to that date, for Schwenter himself quotes from a previous author.

"How two people might communicate with each other at a distance by means of a magnetic needle: If Claudius were at Paris and Johannes at Rome, and one wished to carry some information to the other, each must be provided with a magnetic needle, so strongly touched with the magnet, that it may be able to move the other, from Rome to Paris. Now, suppose that Johannes and Claudius have each a compass divided into an alphabet according to the number of the letters, and always communicated with each other at six o'clock in the evening: then, (after the needle had turned 3½ times from the sign which Claudius had given to Johannes) if Claudius wished to say to Johannes, 'come to me,' he might make his needle stand still, or move till it came to c. then to o, then to m, and so forth. If now, the needle of Johannes' compass move at the same time to the same letters, he could easily write down the words of Claudius and understand his meaning. This is a pretty invention; but I do not believe that a magnet of such power could be found in the world."

Pneumatic Pile Foundations.

The system of foundation described in the article below, which is copied from the December number of the Civil Engineer and Architect's Journal, although extensively used in Great Britain, is but little known and wholly unappreciated in this country. That it only requires to be understood by our engineers to ensure its use, is certain from results obtained in England, where hollow iron piles, three feet in diameter, have been sunk to the depth of 78 feet, through a material that would not admit the penetration of a screw, or of a wooden pile, to a greater depth than 20 feet. After hollow piles have been sunk any required distance, they may be exhausted of their contents, and filled with concrete, which, before the decay of the exterior iron shell, would form an artificial stone pile of great strength and durability.

This system is economical as well as durable, and may be used with great advantage to obviate the necessity of resorting to timber cofferdams, which hitherto have been supposed the only available means of advancing a secure foundation in certain localities. The foundations in shifting sands, or in permanent sands of great depth, or for structures exposed to marine action and ice floods, iron piles filled with concrete afford the highest degree of security.

Mr. T. E. Sickels, engineer, U. S. Dry Dock, Brooklyn, is the agent for this country of the proprietor of the patent.

A most important fact is recorded in connection with the progress of the Midland Great Western railway bridge over the Shannon, in the sinking of cylinders of 10 feet in diameter for the foundations. This has been done with Potts's pneumatic process, by Messrs. Fox and Henderson, the contractors, who have likewise, we believe, the working of the patent. We mentioned some time ago that these cylinders were in progress of construction, and looked forward with some interest to their application in practice.

In reviewing Mr. Edwin Clark's work on the Britannia bridge, we had the opportunity of describing the large cylinders which are being put down by Mr. I. K. Brunel, on the Wye, for that remarkable structure which he is now carrying out. The sinking of those cylinders as there described is not in the nature of pile driving, and although they are of a very large size, yet the 10 feet cast iron cylinders of Messrs. Fox and Henderson are the largest ever applied in the nature of pile foundations, and on this account their success is of material interest to our readers.

The bridge is, we understand, of iron, and of large dimensions, and is supported entirely on cast iron cylinders, and of the diameter mentioned. The cylinders near the shore have been put down by excavating, and the application of weight; but those in the bed of the river by Potts's process. We need scarcely inform our readers that, in this simple process, an air-pump is employed, which being connected with the head of the hollow pile, the air is exhausted, and a stream of water, sand, shingle and gravel, rushing up from below, the pile sinks gradually into the displacement made to any required depth. It is therefore a kind of sub-aquatic excavation, the lower end of the hollow pile being converted into a kind of scoop worked by the air-pump on the platform above. The exhaustion employed was 26 inches of mercury, equivalent to 13 lbs. to the square inch; and the cylinder was driven down between 5 and 6 feet in a few minutes, or rather suddenly, until checked by a piece of submerged or drifted wood. The operations were under the direction of Mr. J. Milner, C. E., the contractor's engineer; and the bridge abutments, which are of stone, under Mr. Dargan, the eminent Irish contractor. The cylinders will be filled in with concrete.

Hitherto the piles employed for Potts's process for sea beacons, for the Maeldraeth Viaduct, the Black Potts bridge, and other structures, have been of very small diameter, so that the proceedings we have just described are of the greatest importance. A cylinder of ten feet diameter gives a large bearing, and four such cylinders will carry a large tablier or blatform for a pier, and which can be put down without cofferdams or other preparatory works, thereby greatly reducing the expense of submarine foundations. Here neither cofferdams, caissons, steam engine pump, nor diving-bells are wanted, only an air-pump of adequate power, which can be easily carried about and rigged anywhere. It will be obvious that unless sunk from the inside, (when there would be as much trouble for pumping as by the pneumatic process. and very much labor and expenditure of time.) any external application of power would, if it could be employed, exercise a very unfavorable effect upon the material of the cylinder. Indeed, a force of much less than 13 lbs. to the square inch would smash a hollow iron cylinder to pieces. Then again it is to be observed, that ten feet is by no means the limit of the diameter to which the cylinders can be carried, so that it is open to engineers to design works in situations and under economical conditions, where hitherto the resources of art were insufficient to meet the emergency.

From the Practical Mechanic's Journal.

Timothy Hackworth.

The name of this engineer, closely wedded as it is with those magnificent strides towards the perfection of railway locomotion, which we, the dwellers in the first half of the nineteenth century, have experienced—has attained an eminently proud position in modern mechanical history. We need merely refer to our "Chapter in the History of Railway Locomotion,"* to show that his connection with that branch of political science, which he did so much to advance, dates from a time when mechanics had very feeble pretensions to the rank of a science. The same paper, in its illustrations of the "Sanspareil," is unmistakeable evidence of the successful result of his labors, and of the amount by which he left the pursuit better than he found it.

Timothy Hackworth was born at Wylam, a small village on the northern bank of the Tyne, west of Newcastle, and contiguous to the ancestral seat of the Duke of Northumberland, on the 22d of December, 1786. His father, who enjoyed no inconsiderable reputation for his skill in boiler-building and mechanical construction, held the foremanship of the smiths in Wylam colliery. There is, in fact, an historical line of descent in the family, with regard to the occupation which formed the basis of his profession. Like other village youths, he was initiated into the mysteries of the rudiments of education by the village schoolmaster, and, at the age of fourteen, was apprenticed as a smith at Wylam colliery.

The distinctive features forming the inherent qualities of his mind were early displayed in an aptitude and acuteness in mechanical construction, which brought him considerable repute; and the passionate ardor with which he grasped at a thorough knowledge of his art, formed a pleasurable theme for his father, who, however, died when his son was no more than 16 years old.

His sensitive nature acutely felt this mournful deprivation, and he thenceforward had to discharge the duties of father and protector to the surviving family. On the completion of his apprenticeship, he was raised to the rank of foreman smith, and took a very prominent part in the introduction of the locomotives at Wylam colliery, the fame of which having reached the ears of the colliery owners, they determined to make trial of the new-fangled power for conveying the coals from Wylam to Lemington. For this purpose, one was ordered from Messrs. Trevithick and Vivian; but it is a matter of local history that this engine never reached its destination; being tried at Newcastle-on-Tyne, the experiment proved its destruction, and instead of proceeding to Wylam, it was employed in a foundry at Newcastle.

* Page 49, Practical Mechanic's Journal, June, 1850.

Although thwarted in this, the spirited owners yet determined to prosecute their original plan, and Wylam became the theatre of locomotive experiments. Up to the period of which we speak, Mr. Hackworth's experience and practice had been chiefly confined to colliery operations, and it was not until the latter part of 1811, that he first took part in locomotive mechanics, when he assisted Mr. T. Walters in building the first locomotive ever employed at Wylam. The boiler was of malleable iron, with cast iron ends, and dragged its load by the adhesive power of the wheels. These were the days of one-cylinder-and-fly-wheel locomotives. This engine, although of some note as a first production, was of questionable utility. Immediately after this, another engine was built by Mr. Hackworth and Mr. Jonathan Forster, in which considerable improvement was made. The fly-wheel was abandoned, and two cylinders were applied, fixed at the boiler sides, and working with levers, and giving out the power to the wheels by an arrangement of spur gear. The generative steam power of the boiler was far from complete, yet the success of this engine was considerable, as she was capable of taking a load of from 12 to 16 chaldron waggons, on the distance of four or five miles, from Wylam to Lemington. Others were made, and the then novel machines, christened the Dillies, took the place of the horses and bullocks hitherto employed, the interest and astonishment which they excited being only equalled by their successful adaptation. Engines on this plan, with very little variation, may still be seen regularly working on the Wylam railroad. The great success attendant upon these experiments gave an impetus to the system, and the other colliery owners in the north were led to its adoption. Those of Kenton and Fawdon collieries had two locomotives manufactured by Messrs. Fenton, Wood, Murray & Jackson, of Leeds, on Mr. Blenkinsop's principle—a rack rail being extended the whole length of the line, into which spur wheels, driven by the engines, worked, and thus produced locomotion. After this, a locomotive engine was made at Killingworth colliery, by Mr. George Stevenson, which, like those at Wylam, worked by adhesive power. She was tried in July, 1814. Thus the machine was rapidly introduced in those districts.

It was at Wylam colliery that the efficiency of the adhesive principle for locomotive engines was first demonstrated, the application being undoubtedly due to Mr. Hedley, the colliery viewer. He first had a machine made and worked by manual power, to ascertain how much weight its wheels would overcome; then, by comparison of the weight of the machine to the load, found how many carriages the locomotive engine would drag by its adhesion upon the rail. This machine, as well as a small model, was made by Mr. Hackworth; and the model, yet in existence, was exhibited at the last Polytechnic Exhibition held at Newcastle.

About this period an incident occurred, which strongly exhibited Mr. Hackworth's rectitude and integrity; for, having been requested to do a piece of work on the Sunday, he firmly declined, on the ground of the sacred character of this day. In consequence of this, he removed to Walbottle colliery, where he obtained the foremanship of the smiths, which he held with distinguished merit.

In 1824, Mr. George Stephenson, who had commenced a manufactory at Newcastle, desired the agent of Walbottle colliery to lend him Mr. Hackworth to superintend this establishment during the time he was surveying the Liverpool and Manchester railway. This was granted, and the borrowed engineer undertook the management. In this capacity, his energy and perseverance, combined with his manly talents, raised him into honorable notice, his position affording a wide field for their display. On Mr. Stephenson's return, he was very anxious to retain Mr. Hackworth in his service, and offered him considerable inducements to continue—even half his own interest in the manufactory. For reasons best known to himself, he declined this proposal.

At this time an exploring expedition to the gold and silver mines of Venezuela, Trinidad and New Granada, was started in the neighborhood, and the superintendence was offered to Mr. Hackworth; but he declined its acceptance, and Mr. R. Stephenson undertook the charge.

After the completion of his engagement with Messrs. Stephenson and Co., he was for some time engaged in building boilers for the Tyne Iron Company; and had taken an establishment in Newcastle, intending to commence business on his own account, having obtained several orders, when he was induced, through the agency of Mr. George Stevenson, to accept the office of resident engineer and general manager of the Stockton and Darlington railway, in consequence of which his intentions were prematurely abandoned, and in June, 1825, he removed from Newcastle to Darlington. Then began that laborious research and vigorous investigation of the principles of locomotive mechanism, with a view to their adaptation to the requirements of public traffic; and how well he succeeded, was admirably attested by the general celebrity of the locomotives upon this line. His duties were of a most arduous and fatiguing character, such as can scarcely be conceived at the present time, considering the then raw state of everything connected with railways; without any assistant so far acquainted with the system as to sustain a part of its duties, almost the entire guidance and direction devolved upon himself. The herculean labors which he performed during this epoch in railroads, marked the force of mind which could gather mere fragments of ideas, and connect their disjointed parts, working out of them a beautiful and effectual system of public conveyance.

The general inferiority of the locomotives first employed rendered the question of practical adequacy doubtful. Whether iron-muscled, steam-animated joints, or dame Nature's most useful brutes, were to have the ascendant in railway propulsion, was resolved by him. He saw and studied the imperfections which deteriorated their efficacy, and by remedying those in a master-stroke of his own, settled the question of expediency between the rival forces. The locomotive forces on the Stockton and Darlington railway, worked on an extent of 20 miles, whilst five miles of the line consisted of inclined planes, in which stationary engines were employed. Among the many contrivances in railway machinery, stand conspicuous the double-acting drums for inclined planes, first put down on the Brusselton incline in 1826.

In order clearly to understand the importance of this invention, it will be necessary to give some account of the old drum, which was superseded. Hitherto the practice was to have only one drum, which was fixed vertically, working each side of the incline alternately. Those conversant with mechanics can alone appreciate the value of Mr. Hackworth's invention, for it will be apparent to practitioners that a great loss of power was consequent on the old mode, as the whole of the work had to be done by the engine Not only was it very slow, but great difficulty was experienced in getting the rope to coil properly upon the drum, which it was necessary to watch and keep right with a crowbar. In the place of this he put down the double-acting drum—two drums on one horizontal shaft. The diameters of the drums being proportionate to the respective lengths of the inclined planes, the momentum of the descending waggons considerably aided the engine in hauling the ascending waggons.

A far greater improvement still was the alteration which he made in the drum of the Etherley Incline immediately after. Here, the laden waggons having to descend the long bank, their momentum was such as to draw the laden waggons up the short bank, irrespective of the power of the engine, the latter being only required to draw the empty waggons up the long side, and had the assistance of the empty waggons descending the short bank on the other side.

Another simple and ingenious instrument was the discharge-hook, or dog, for instantly detaching the rope from the waggons without stopping, as well as the drag-frame, or cow, attached to the last carriage of the train whilst ascending the incline, to arrest its destructive descent in case of rope breakage. Another useful provision was the switch, fixed a short distance from the top of the incline, and having a rod connection to a lever at the top, by which the waggons could be thrown off the line when they happened to run over the bank-head. By a similar arrangement at the bottom, they could be thrown off when they chanced to escape the first switch, and prevent a collision with the waggons at the foot of the incline.

A great improvement in mechanics was the "Royal George" locomotive engine, which will ever remain an enduring trophy of his powers. Considering the comparative infancy of her compeers, as regarded their suitability for public traffic, she stood pre-eminent as the boldest step in mechanical construction ever concentrated in one single effort, and marked an era potent with the most sanguine results, as a point from which other improvements were rapidly starting. Holding, as she then did, the foremost rank in locomotives, we might be allowed, perhaps, to classify these improvements. There were six wheels, all coupled, yielding an increase of adhesion of paramount importance in every state of the weather. Then a vast increase of evaporative power of the boiler, by a new description of heating surface, as well as the never-to-be-forgotten blast or draught pipe, first brought to bear upon this engine, which enabled her to work effectually at 9 miles per hour, for 20 miles, with a load of 24 chaldron waggons, at an economy rarely exceeded yet, notwithstanding the successive gradations through which the system has passed since this engine, on the Stockton and Darlington railway, first led the way. From this display of locomotive talent, he advanced into the contending ranks of the competitors for the £500 premium offered by the Liverpool and Manchester railway company, in 1829.

To be continued.

European and North American Railway.

We have, in a former number of our paper, alluded in another connection to the speech of the Hon. F. O. J. Smith, made at the Portland Convention. Our readers will all thank us for giving them his speech, as reported among the published proceedings. The profound philosophy and strong sense which characterised the whole speech, made its delivery one of the most interesting events of the occasion:

Mr. Smith said, we all know, and feel the great amount of thanks due to the able delegates from the neighboring provinces, for the instructive and interesting information and enlarged views they have afforded this Convention on yesterday and the preceding day; and I need not attempt to add to the general expression of obligations felt towards those gentlemen. But, sir, I feel a profound regret personally in having been deprived unavoidably this morning, of listening to the eloquent speech of the honorable gentleman from Massachusetts, Gen. Dearborn, who has, as I learn from all sides of the Hall, and from all classes outdoors, done honor to his state, and honor to himself, and afforded the highest satisfaction to all who had the opportunity of listening to him. Although not strictly a citizen of Portland myself, yet, as her neighbor and her friend, I do feel justified in returning most heartfelt thanks in behalf of our city to the honorable gentleman from the Old Bay State—the parent of Maine—for his great good service, rendered on this occasion. Nay, more; I congratulate not only the citizens of Portland—not only the citizens of Maine—not only the citizens of New England, but the citizens also, of all states of this Union, and of the British government, on the proud promises of this occasion. In the annals of mankind—since the first dawn of civilization, there has not been a spectacle that surpasses in moral and political grandeur—or that ought to surpass in moral and practical effects, the exhibition which *the three memorable days* of this convention have made to the world. Were all the blood shed at Calvary, and which then was taken up as by an universal atmosphere, and diffused throughout the world of man, and which has since circulated through the veins of all the different races of our kind, were to be gathered into one stream and pourod out here upon your table, as upon a common altar, the evidence of kindly feeling, the spirit of "peace on earth and good will towards men," could not be more satisfactorily impersonated by it, than has been exhibited here, on this occasion. Sir, considerations of higher influence, of greater value than the mere construction of a railroad here presented themselves and impressed themselves upon the feelings and hearts of us

all who have been in attendance here; and if no railroad, such as has been sanctioned by the voice of this convention should ever be constructed, I should consider that we have all been gainers by the manifestations, and better knowledge of each other which this occasion has made. It has bound together as in a new marriage, the citizens of different nations, and as was well proclaimed by a previous speaker, what has been joined together in the presence of both God and man, let no man hereafter put asunder. (Cheers.)

Mr. President, it is unnecessary for me to attempt to elucidate by details, or statistics the magnitude of the benefits, or the promising characteristics of the great enterprise before us. It is enough for me to know—it is enough for the business men and capitalists, on both sides of the Atlantic, to appreciate that it is a proposition to save *one-fifth part of the time*, hitherto employed in making a business intercommunication between the great markets of the world. This twenty per cent saving is consideration enough, and of itself, to insure success to this project, at an early day. It is an inducement sufficient to enlist the sympathies, and attract the attention of the whole commercial world. And the work is one of which all may be proud to aid in consummating.

True it is, when we contemplate the works of art of ancient days, we are overwhelmed with astonishment. As we trace on the pages of history, the dimensions, and contemplate the giant proportions of these monuments of human industry, piled up like primeval mountains in the shape of mounds, and columns, and walls of defence, and temples erected to unknown gods—and obelisks to the memory of mortals whose names and memory have been blotted from both history and language—and for a moment we *almost* wish we could have been born unto conceptions thus stupendous. That we could have lived in days thus signalized by great works of art and industry.

For a moment, we feel as if we were but pigmies compared with the ancient races of men—that our great works compared with these vestiges of their great works, are but as artificial mole hills to natural mountains.

But, sir, let us pause in this comparison. The true distinction of greatness—the real characteristics of sublimity lie not in the material proportions of things, but in their spiritual power, to produce great moral and useful results. The tiny teeth of the noiseless field-mouse, that gnaw assunder the cord that binds the lion, are greater for the purpose of freedom, than the strength of the lion himself.

The little hillock of moveable earth that produces the grain, on which the stalled ox is fed, is far more potent to sustain all the results that depend on human life, than the island of rock that has withstood the surges of the ocean, from the dawn of creation until our own day! (Cheers.)

Sir, what were these mounds, and columns of ancient days—even the walls, like unto the vestiges and history of Ninevah and Babylon, in point of utility and moral power, compared with the shortest railroad of our own day, out of which one steam locomotive only has had a birth and employment?

Is there one additional ray of divinity traceable to the hearts of the race of men, from any of these massive works of ancient art, over which the brows of thousands must have sweated, and the hearts of thousands must have fainted from toil?

Sir, so far as we know, they express nothing but the tyranny of some despot over his subjugated fellow-men—evidences of the terrors of power to intimidate the oppressed. No one impress of divinity was upon them—they served but the purposes of a temporary human pride—they contributed nothing to ennoble or dignify human nature—and hence they crumbled back into dust with their vain glorious authors, or fell beneath the neglect which awaits the heartless and soulless creations of individual ambition and vanity every where, and in every age.

Mr. President, it was left for our age, if not for our particular generation, to exercise and enjoy that new birth to man in this world, and on this side of the grave, which adds more than four-fold power and four-fold duration of his previous existence, which makes him a divinity, when before he was but humanity. The ancients builded their huge piles of matter, as the enduring evidences of their greatness and skill. We, of this day, reason in an opposite direction, and *reduce* matter, but *enlarge* mind. We look at the spirituality of things, and their ability to produce great moral and physical results. As has been beautifully expressed by one of the sublimest, if not most sublime of living English poets:

"We live in deeds not years; in thoughts not breaths;
In feelings, not in figures on a dial.
We should count time by heart-throbs.
He most lives who thinks most—
Feels the noblest—acts the best!"

Mr. President, this new birth of power which intellect has brought forth increases the lives of men as our fathers before us knew not how to increase the length of their lives. For what else is the true measure of life, but the power and means of accomplishing the greatest amount of good and great results? If a man has learned how to accomplish four-fold as much labor in a given length of time—to travel and return over four-fold more distance in a given length of time, than he could previously, for all the practical purposes of life, he lengthens out his existance in a like ratio. The use of steam power and the railroad enables him to do this. And had the Almighty in his wisdom, when he permitted our race thus to increase the duration of their existence, and their physical powers for practical results, but resolved on increasing, for this purpose, the muscular stature of man to a proportionably greater size, instead of accomplishing this result by efforts of mind, what giants would we be now, walking to and fro upon the earth!—Why, the present generation of man, as we now see them, would be but pigmies compared with this new creation of muscular form and power! But then—and this shows how vain and foolish is the wisdom of human devices when assuming to improve upon the wise ordinances of Divine Providence—*then*, what an utter wreck would have been made, for all practical uses, of all the past industry and the appointments for social conveniences of the human race. To giants such as we should have become, our dwellings would become mere dog kennels. Our implements of labor would be useless toys, fit only for children's amusements.—The entire streets of our cities would scarcely answer for side walks, for the strides of our footsteps to and fro would be desolation to most things existing under the present condition of our race.—Nay, an entire farm would be scarcely equal for the graves of a single generation of owners. But, sir, it is mind, not matter, that distinguishes our generation. Archimedes, the most renowned mathematician and geometrician of older times, boasted, on discovering the power and principles of the wheel, and pulley, and lever, etcetera, that he could lift and move the world, if he could but have a fulcrum outside of it on which to rest his lever. Well might he boast, at that day, of his great discoveries. And he thought, too, that in them he had exhausted all the powers of mechanics and science. But, sir, had Archimedes lived in our day, he could have been taught how to find in the brain, and the strong, determined heart of man, both the lever and the fulcrum, by which, while standing upon the face of the earth itself, he can move it to and fro, like a Divinity! (Repeated cheers.)

Sir, I am content—nay, I am rejoiced to live in these times—in our own days. I envy not the greatness, nor the enjoyments of other days, nor of other races. Even if we should fail to construct the great work now proposed—which is to closely connect, not simply great markets of one continent, with great markets of another continent—but which will connect the GREAT HEART that is represented *there*—(pointing to the American flag which was suspended on one side of the Hall) with the other GREAT HEART that is represented there—(pointing to the British flag that was suspended on another side of the Hall) of which I entertain no doubt and no fear—I still venture to say, there is not a man who has participated in these proceedings, without feeling thankful, railroad, or no railroad, that this convention has been holden. It has been fortunate in all its circumstances, and it cannot but be fortunate in all its results.

Mr. Smith's remarks were received with the utmost enthusiasm, and repeated cheers.

Railroad Letting, in Virginia.

PROPOSALS will be received at the office of the chief engineer of the Richmond and Danville railroad, until 9 o'clock A. M., Monday, the 10th of March, to be decided the 13th of the same month, for doing all the grubbing, clearing, grading, ditching and masonry, on the Richmond and Danville railroad, in the counties of Amelia, Nottoway, Prince Edward, Lunenburg and Charlotte, comprehending about 45 miles of road.

Profiles and specifications can now be seen at the office of the company in Richmond; and after the 10th of February, at the offices of the resident engineers, on the line, at Burkeville and Keysville.

By order of the board of directors,
ANDREW TALCOTT,
Chief Engineer R. & D. railroad.
Engineering department R. & D. R. R. Co., Richmond, Jan. 22, 1851.

Wanted.

WANTED—A Situation in a Civil Engineer's office, by a Young Gentleman from Scotland—has had six years' experience as a practical Draughtsman, Architect, Surveyor, and Leveller in one of the principal civil engineering establishments in Scotland. First rate reference given. Apply to Messrs. Cooper & Hewitt, 17 Burling Slip, or to
JAS. SNEDDON,
23 Harrison st.

Wanted.

A Second-hand Locomotive of 10 to 15 tons weight. A note, giving lowest terms, addressed to A. B., Railroad Journal Office, will receive attention.
January 9, 1850.

American Railroad Iron.

1000 Tons, weighing 50 lbs, per yard, manufactured by Reeves, Abbott & Co., at the Safe Harbor Iron Works, and now lying in yard at Brooklyn, for sale by
CHOUTEAU, MERLE & SANFORD,
No. 51 New street.

Tubes, Tubes, Tubes.

THE undersigned have received special permission from, and are in direct communication with, the *Birmingham Patent Lap Welded Iron Tube Company*, for the sale of their very excellent and superior Boiler and Gas Tubes in large or small quantities.—These Tubes are sold very extensively in England and on the continent of Europe are sold exclusively by
WM. BIRD & CO.,
Iron and Tinplate Merchants,
44 Wall st., New York
5 Martin's Lane, City, London,
and 140 Buchanan st., Glasgow.

Railroad Letting in Ohio.

Bellefontaine and Indiana Railroad.

SEALED PROPOSALS will be received at *Jacksonville*, Darke county, Ohio, (known also as Versailles), until January 21st, 1851, for doing the Grubbing, Clearing and Grading on 25 miles from Loramie Creek to the junction with the "Indianapolis and Bellefontaine Railroad" at the Indiana State Line. Profiles are now ready at the Engineer's Office in SIDNEY, Shelby county, Ohio, where information can be obtained from Israel Pemberton, Resident Engineer. Proposals may also be left at *Sidney* till the 20th of January.

SEALED PROPOSALS will also be received at MARION, Ohio, until February 5th, 1851, for doing the Grubbing, Clearing and Grading on about 40 miles between Marion and Bellefontaine. The work, and profiles on this division, will be ready ten days before the letting. Information can be obtained from Alexander Worrall, Resident Engineer, at Bellefontaine, and at the Chief Engineer's Office in Marion.

The above are the only portions on the route not yet under contract. This road is known as the "third link" in the "great central backbone chain" from Philadelphia to St. Louis, and likewise as the western continuation of the main lines from Boston and New York, through Cleveland.

By order of the Board of Directors.
W. MILNOR ROBERTS,
Chief Engineer.
Engineer's Office, Marion, Ohio,
December 10, 1850.